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LEVEL II

PRELIMINARY DESIGN STUDY OF A TAIL ROTOR BLADE JETTISON CONCEPT

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APPLIED TECHNOLOGY LABORATORY POSITION STATEMENT

This report provides the results of a preliminary concept study which indicates that a tail rotor blade jettison system can be developed for four-bladed tail rotor systems, which will allow the controlled jettison of a damaged blade and its opposing blade and allow continued flight with the remaining two blades. A prototype system was developed that evaluated system performance characteristics throughout the maximum/minimum tail rotor speeds anticipated and determined the resultant effects on structural integrity, tail rotor stability, and handling qualities using both analytical and simulation modeling techniques. The analyses and evaluation tests conducted showed that the prototype blade jettison system developed meets the performance requirements of the UH-60A helicopter.

Results of this contractual effort are still preliminary, and additional effort is required to improve and validate the survivable characteristics of the design.

Mr. Harold W. Holland of the Aeronautical Systems Division served as technical monitor for this effort.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Loss of a significant portion of a tail rotor blade will cause severe imbalance of the tail rotor that can lead to secondary damage to the helicopter and possible injury to the occupants. A system that detects such blade loss and removes the imbalance by jettison of the residual portion of the damaged blade and its opposing blade can overcome the rotor imbalance and allow continued flight. Using the performance characteristics of the UH-60A BLACK HAWK helicopter, a prototype system

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was developed and its performance evaluated to determine the capability of the system to jettison rotor blades in a manner that would prevent secondary damage. Additionally, analyses were conducted to determine the dynamic stability characteristics of the UH-60A tail rotor in a two-bladed configuration and the ability of the helicopter to accommodate the loads developed during transition from four to two blades. Residual helicopter performance and the capability of the helicopter to be retrimmed following jettison of two opposing tail rotor blades was analyzed using the GENERAL HELICOPTER FLIGHT DYNAMIC MODEL programmed on a PDP-10 Hybrid Computer. Handling qualities to be expected following the loss of opposing tail rotor blades were examined by integrating the computer model and two-blade subroutine with a flight simulator. The analyses and evaluation tests conducted show that the prototype blade jettison system developed meets the performance requirements of the UH-60A helicopter.

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

LIST OF ILLUSTRATIONS

LIST OF ILLUSTRATIONS (continued)

LIST OF ILLUSTRATIONS (continued)

LIST OF TABLES

INTRODUCTION

Loss of a significant portion of a tail rotor blade will result in severe tail rotor imbalance that can lead to secondary damage to the helicopter and/or injury to the occupants. Continued use of the helicopter in hostile environments is anticipated, and with this the possibility of exposure of the helicopter to increased ballistic threat levels beyond the normally survivable 7.62mm projectile. The 14.5mm, 23mm, 30mm, and 37mm high explosive incendiary rounds are capable of inflicting such severe damage that if a tail rotor blade sustains a hit, blade loss can be expected to occur. The development of tail rotor blades that can tolerate the magnitude of damage that these rounds can cause must therefore be substantially larger and will, in all likelihood, have an undesirable increase in centrifugal force resulting in significant weight penalties in the rotor hub, drive shaft, and supporting structure as well as increasing power requirements. This escalation of component size is particularly unsuitable for the small, reconnaissance-type helicopters.

As an alternative to the development of ballistically tolerant blades to prevent rotor imbalance of four-bladed tail rotor systems, the imbalance forces caused by the loss of a part or all of a blade can be overcome by the controlled jettison of the residual portion of the damaged blade and its opposing blade, to allow continued flight with the remaining two blades. The intent of this effort was to develop a working prototype system to evaluate system performance characteristics throughout the maximum/minimum tail rotor speeds anticipated and to determine the resultant effects on structural integrity, tail rotor stability, and handling qualities using both analytical and simulation modeling techniques.

The prototype system relates closely to a concept defined in a study program previously conducted by Sikorsky Aircraft under U. S. Army Contract DAAD05-73-C-0523, where the feasibility of applying the opposing blade jettison concept to the main rotor system of a four-bladed helicopter was determined. The results of the program are included in a report (Reference 1) distributed by USA Ballistic Research Laboratories, Aberdeen Proving Ground, Maryland. In accordance with the requirements of that program, a conceptual design was established for damage detection and controlled rotor blade jettison that is the basis for the prototype design of this present contract. Although the basic concept is essentially the same, many circuitry improvements and refinements have been incorporated.

The prototype development and associated analyses were based on the physical and performance characteristics of the UH-60A BLACK HAWK helicopter (Figure 1), a candidate for initial application of the system. Additionally, complete performance information and simulation programs were readily available for this effort in accordance with the contract. The system design lends itself to kit-type installation, and the electrical portion of the system can be modified for other four-bladed helicopters with only minor changes. Pyro-

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[1] J. W. Johnson, R. A. Selleck, Rotor Balance Restoration Study, Sikorsky Aircraft, U. S. Army Ballistic Research Laboratories Contract Report #197, December, 1974.

technic blade severing devices, damage detectors, and supporting hardware must be sized for the particular helicopter application.

During the system design portion of this program, emphasis was placed on maximizing system reliability. To this end, the system employs state-of-the-art components, fully encapsulated assemblies, solid-state design, no moving parts in contact, and the latest design techniques and safeguards to prevent inadvertent system initiation. The capability of the prototype system developed under this contract to effect blade jettison within the jettison window established for the UH-60A helicopter was evaluated by installing the system in an Engineering rotary test stand, capable of incremental rotational speed adjustment from well below to well above the UH-60A design rotor speeds.

Concurrent with prototype system development, the dynamic stability characteristics and handling qualities that can be anticipated for the UH-60A helicopter with two opposing tail rotor blades jettisoned were determined. The dynamic analysis included an investigation of the two-bladed stability, vibration, and rotor hub load levels for speeds to 150 knots. Additionally, the ability of the UH-60A helicopter to structurally accommodate the centrifugal loads from loss of a full tail rotor blade until rebalance by opposing blade jettison was examined. The handling qualities were examined through the use of the UH-60A version of General Helicopter Simulation Program and blade transition subroutines to determine trim characteristics. The pilot work load was determined by integration of the Simulation Program with a flight simulator to obtain qualitative pilot-in-the-loop assessment of flight attitude recoverability following transition from the normal four-bladed mode to the emergency two-bladed mode.

Figure 1. UH-60A BLACK HAWK Helicopter Baseline

PART I CONCEPT ANALYSIS

Loss of a significant portion of tail rotor blade is sensed by the interruption of detector circuits located along the leading and trailing edges of the blade spar. Interruption of both of the detector circuits results in initiation of pyrotechnic linear-shaped charges (LSC) located adjacent to the rotor hub that sever both the residual portion of the damaged blade and its opposing blade. The specific point of rotor rotation at which the separation occurs is controlled to prevent secondary damage to the main rotor blades or the vehicle proper.

Successful operation of the system on the UH-60A helicopter requires the analysis of the effects of the system on the aircraft and its occupants both during and after blade jettison has occurred. It is necessary to define an available window for blade jettison that will avoid secondary damage and to determine the residual performance capability of the helicopter following the jettison of the two rotor blades. Included in the analyses is a determination of the resultant vibration levels and loads to be expected and a discussion of the ability of the UH-60A to structurally accommodate the reaction loads during the period of rotor imbalance. This work is presented in the following subtasks.

BLADE SEPARATION WINDOW

Following loss of a portion of all of the damaged rotor blade, rebalance of the rotor can be effected by either simultaneous jettison of the residual portion of the damaged blade and its opposing blade or by sequential jettison of the blades. The latter, sequential, approach is selected for the UH-60A for the following reasons: The available window for simultaneous blade jettison is established by the need for adequate clearance with the main rotor blades for a forward jettisoned blade and the horizontal stabilator for an aftward jettisoned blade. The available window must accommodate the variances in the point of blade jettison due to the variations of component function times and the range of rotor speeds considered for the design of the system. Of greater importance, however, is the potential hazard of a vertically jettisoned tail rotor blade to the helicopter in the event of system operation in a hover, or near hover, flight mode. Selection of a sequential blade jettison capability overcomes both of these difficulties. Figure 2 shows the window established for use in the design of the UH-60A blade jettison system.

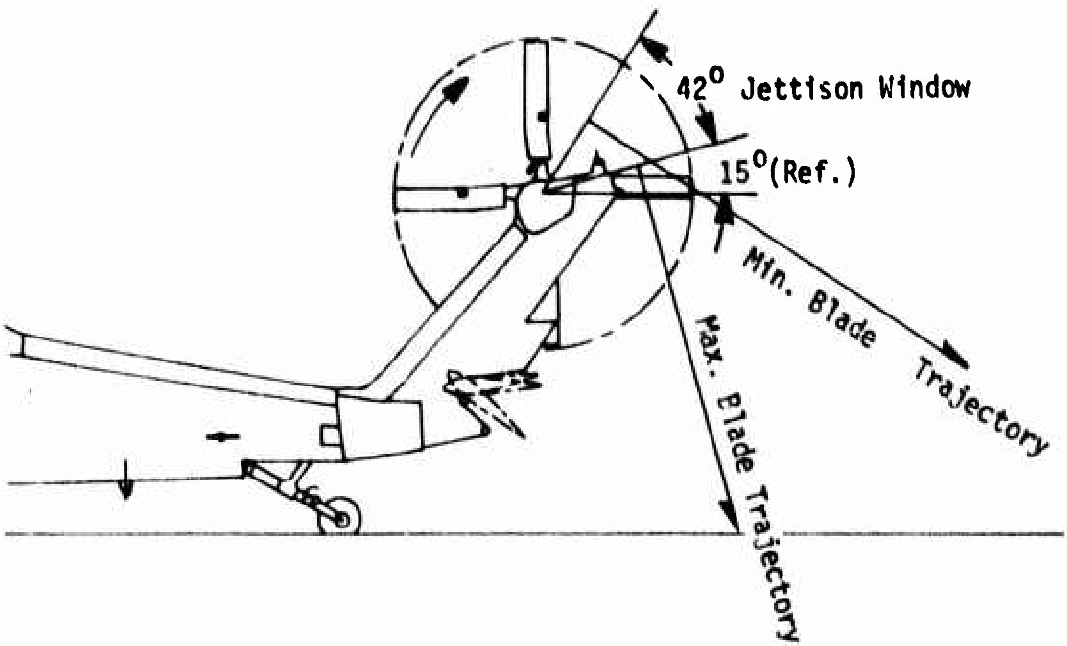

Figure 2. Acceptable Window for Sequential Rotor Blade Jettison

Although the sequential jettison of blades would normally allow a much greater window than that shown in Figure 2, the upper limit has been constrained to minimize any potential hazard that jettisoned blades might present to other aircraft that may be flying formation with the damaged aircraft. Further, the lower window limit is less than that available to reduce the possibility of secondary damage to the remaining rotor blades by a rebounding blade if the system is operated while the aircraft is on, or near the ground. The 42-degree window has been verified by analysis to be adequate for rotor rotations from 70% N_R (830 RPM) to 150% N_R (1877 RPM). Additionally, the 42-degree window will accommodate a worst case stack-up of component function times at the 150% N_R rotor speed.

TWO BLADE STABILITY, VIBRATION, AND LOAD LEVEL

Analytical investigations were performed to evaluate the dynamic stability characteristics of the two-bladed UH-60A cross beam tail rotor, and the vibration and load levels in the aircraft in the forward flight regime up to 150 knots. The analytical results indicate that the two-bladed rotor system mounted on the flexible pylon is stable up to the maximum speed investigated of 150 knots.

A normal modes rotor aeroelastic analysis was employed to calculate the steady and 2 and 4/rev vibratory loads at the hub originating from the two-bladed rotor system. These loads were then used in conjunction with the tail rotor pylon modes to evaluate the vibration levels experienced at the hub and gearbox. It was found that the vibration and load levels

increase with forward speed. At 150 knots the highest speed investigated, the maximum 2/rev vibration levels result in a roll moment at the gearbox-pylon attachment of 20 percent of the ultimate value. This level is acceptable to maintain flight and to land within the required one-half hour design criterion established for the UH-60A helicopter.

DYNAMIC STABILITY ANALYSIS RESULTS

The dynamic stability characteristics of the two-bladed UH-60A tail rotor system were investigated with a Floquet analysis. The analysis uses blade flapping and lead-lag degrees-of-freedom and up to ten air-frame modes. The stiffness, damping, and mass matrices are evaluated for all the blades from the initial conditions specified for blade flap, lead-lag, and pitch motions at various azimuthal positions and integrated for one rotor revolution. The eigenvalues are then calculated and the system stability determined from an inspection of the real part of the eigenvalues. The UH-60A tail rotor blade characteristics and the pylon modes used in the Floquet analysis are summarized in Tables 1 and 2 respectively. The axes sign convention employed throughout this study is shown in Figure 3. The analysis also includes the effect of rotor inflow, blade pitch and twist, and linear aerodynamic characteristics.

Table 1. UH-60A Tail Rotor Blade Characteristics

Parameter	Units	Quantity
Radius	ft	5.5
Radial Location Where Blade Bending Starts	ft	0.3333
Outboard Blade Chord	ft	0.8125
Number of Blades	-	2.0
Rotor Speed (100% N_R)	rpm	1215.0
Weight of One Blade	lbs	19.0
Blade First Inertia Moment	slug-ft	1.2332
Blade Second Inertia Moment	slug-ft^2	4.1266
Structural Damping	percent	0.50
Equivalent Linear Twist (from center of rotation to blade tip)	deg	- 20.0
Outboard Blade Airfoil Section	-	SC-1095
Tip Loss Factor	-	0.97
First Flatwise Frequency/Rotor Speed	-	1.152
First Edgewise Frequency/Rotor Speed	-	1.696
Air Density	slug/ft^3	0.002175
Speed of Sound	ft/sec	1102.0
Pitch-flap Coupling, δ_3	deg	35.0
Airfoil Lift Curve Slope	-	6.30
Airfoil Drag Coefficient	-	0.007

Table 2. Tail Rotor Pylon Modes Without Axial Modal Components

Mode No.	M_G lb sec^2/in	ω_G rad/sec	ζ_G %	ϕ_x in/in	ϕ_y in/in	$\phi_{\theta x}$ 1/in	$\phi_{\theta y}$ 1/in
1.	1.3146	41.15	4.5	1.0	.2105	0.	-.017
2.	1.1255	198.13	3.6	-.285	1.0	-.095	-.068
3.	9.9661	395.42	1.8	1.0	.7714	0.	.0

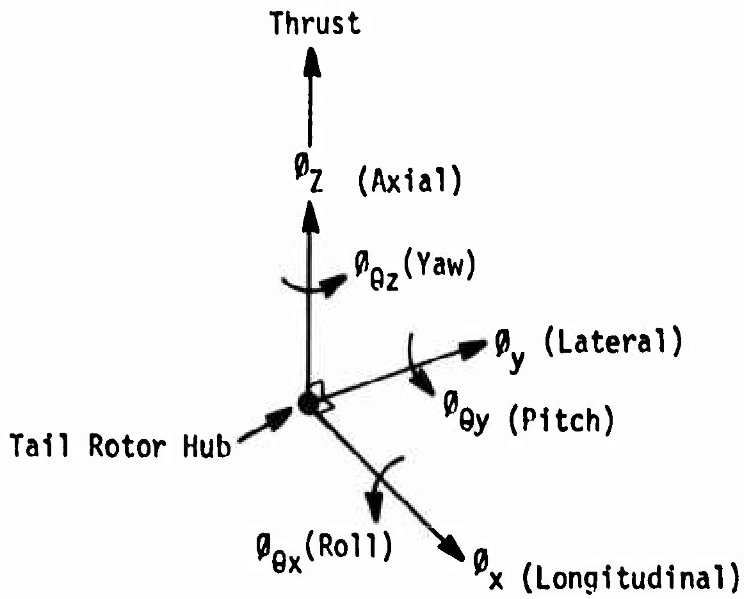

Figure 3. Axes Sign Convention

The results from the Floquet analysis are presented in Figures 4 through 6, for a range in forward speeds from zero to 150 knots. From Figure 4 it is seen that all rotating system (blade) and fixed system (tail pylon) modes are stable in the speed range investigated. The least stable modes are the blade lead-lag mode and the third fixed system mode, both showing a damping level of about one-half percent. The effect of forward speed is not significant except near 150 knots when two of the fixed system modes indicate a degradation in damping level. It is noted that the response of the two blades is not identical due to the presence of the fixed system modes and their interaction with each blade. Exclusion of

the fixed system modes from the analysis simulates a completely rigid hub.

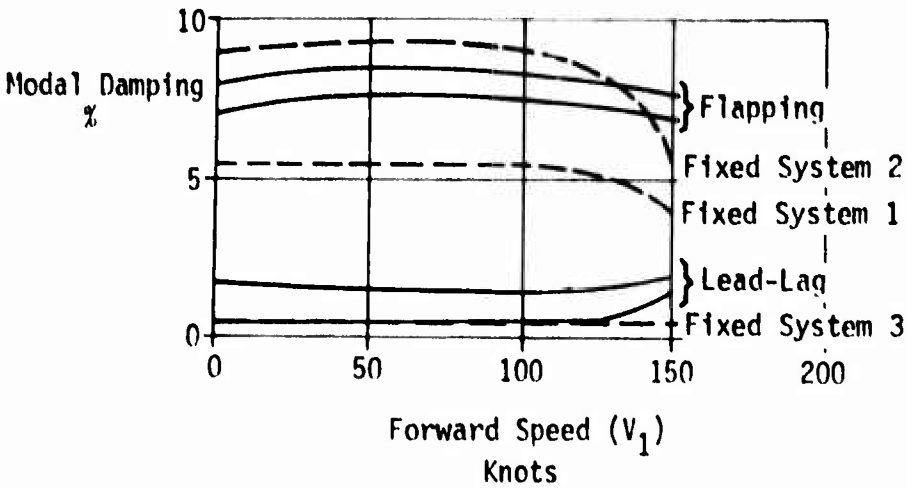

Figure 4. Modal Damping Variation with Forward Speed Including Tail Rotor Hub Flexibility

The damping associated with the blade flapping and lead-lag motions without tail rotor hub flexibility is presented in Figure 5. The results indicate that the blade lead-lag damping is lowered slightly by the flexibility of the hub while the flapping mode shows very little change in stability. Each blade now behaves exactly the same.

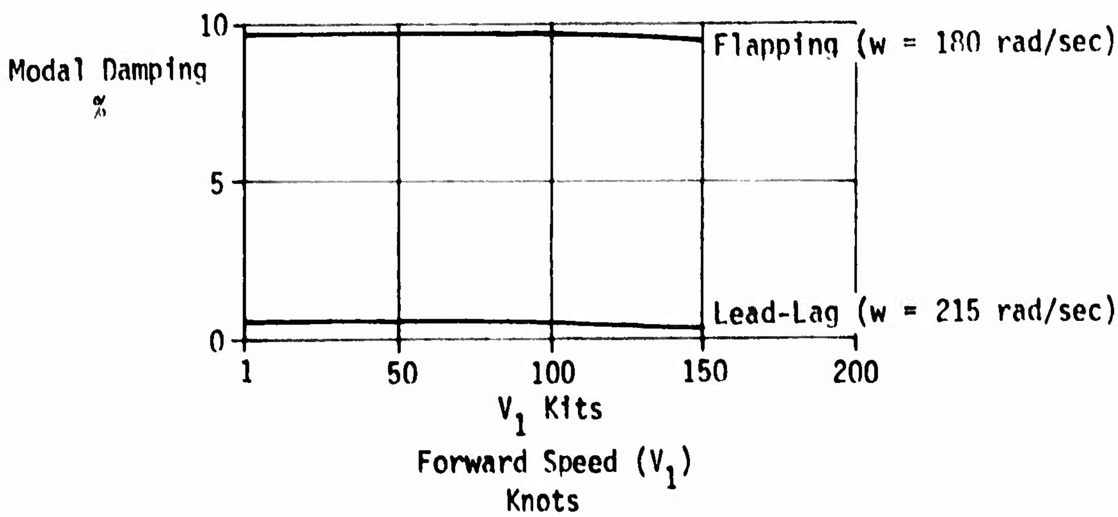

Figure 5. Modal Damping Variation with Forward Speed without Tail Rotor Hub Flexibility

The frequency of the blade and fixed system modes with forward speed is illustrated in Figure 6. This figure shows that the modal frequency is not influenced significantly by forward speed. The blade flapping mode and one of the fixed system modes have frequencies close to each other, especially at 150 knots. The coupling between these two modes results in the damping degradation seen in Figure 4. The frequencies of the blade flapping and lead-lag motions without tail rotor hub flexibility are 180 (1.42/rev) and 215 (1.69/rev) rad/sec, respectively. The increase in the blade flapping frequency over the uncoupled value of 1.152/rev given in Table 1 is due to the pitch-flap coupling of 35 degrees.

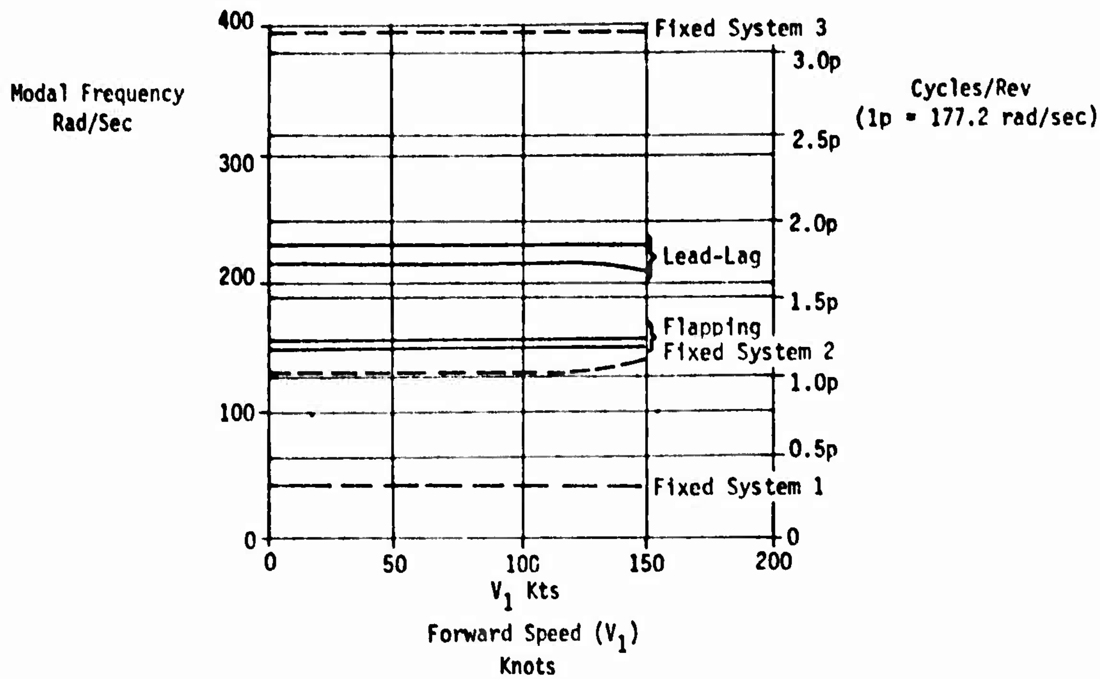

Figure 6. Modal Frequency Variation with Forward Speed Including Tail Rotor Hub Flexibility

TAIL ROTOR HUB LOADS AND VIBRATION RESULTS

The aeroelastic behavior of the two-bladed UH-60A tail rotor was investigated in hover and forward speeds up to 150 knots using the time history analysis discussed in Reference 2. The analysis describes the aeroelastic response of the rotor blade by a "normal modes" technique. Five rotor blade degrees-of-freedom (three flatwise, one edgewise, and one torsional) are employed to describe the aeroelastic characteristics

[2] Arcidiacono, P. J., Prediction of Rotor Instability at High Forward Speeds, Volume I; Sikorsky Aircraft; USAAVLABS Technical Report 68-18A, U. S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, February, 1969, AD-685860.

of the rotor system. Once the rotor flight condition is prescribed (as given by blade collective pitch input, rotor inflow, and thrust), the integration of the equations of motion proceeds around the rotor azimuth at specified intervals for a number of rotor revolutions. The displacements and velocities of all blade modes are then checked at the beginning and at the end of each complete rotor revolution. For a stable condition, this procedure usually takes up to ten rotor revolutions before the modal displacements and velocities repeat themselves within a specified tolerance for a "converged" solution. Once convergence has been reached, the rotor hub loads can be calculated both in a rotating axis system and in a fixed axis system. The hub shears and moments are then harmonically analyzed. For a two-bladed rotor, the hub loads present in the fixed axis system are the steady loads and are at frequencies that are multiples of twice the rotor speed.

The tail rotor thrust and collective pitch at the 75-percent radial location are presented as a function of forward speed in Figure 7. The thrust-pitch relation is consistent with the main rotor torque requirements for level flight operation. It should be noted that at forward speeds greater than 120 knots, the tail rotor operates increasingly in the blade stall region, resulting in degradation of rotor performance and substantial increases in rotor hub loads.

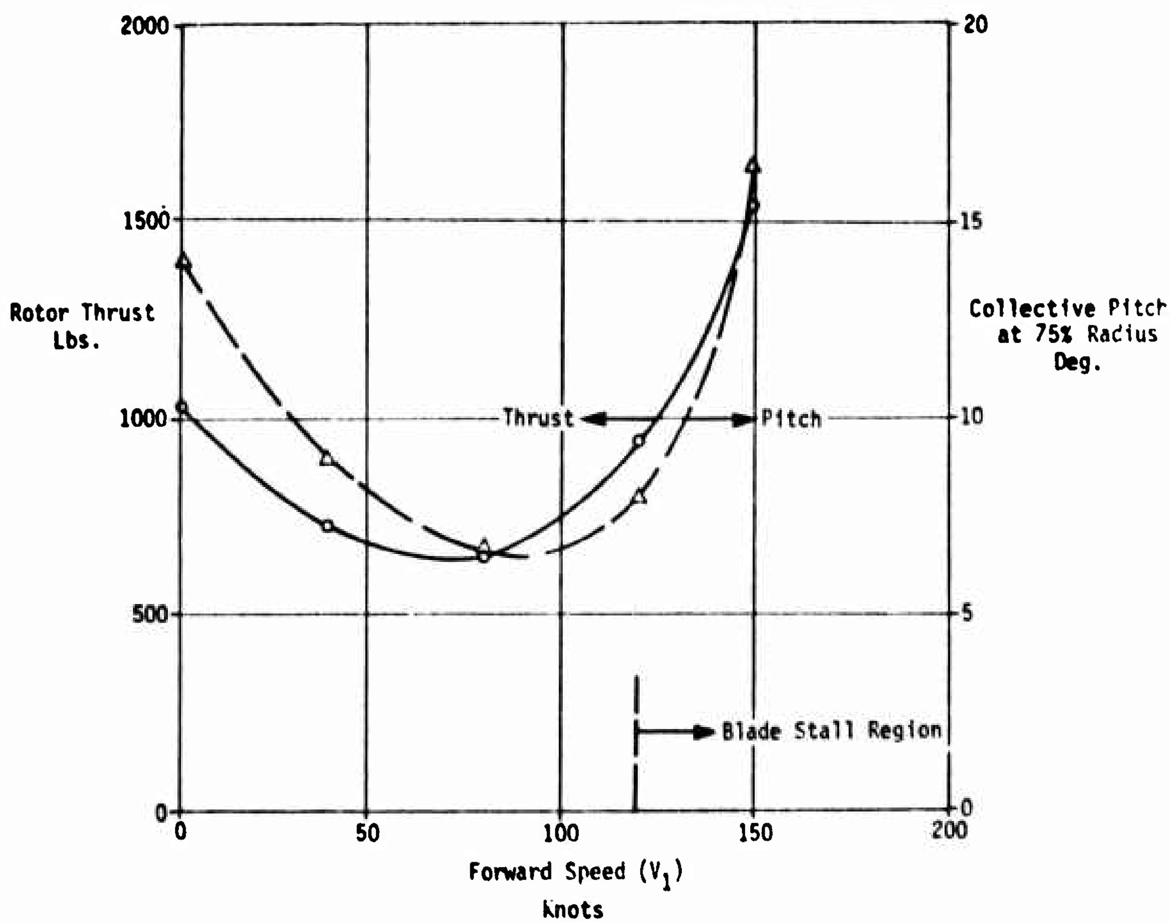

Figure 7. Tail Rotor Thrust and Collective Pitch
Variations with Forward Speed

The steady and 2 and 4/rev vibratory hub shears (Figures 8, 9, and 10) and moments (Figures 11, 12, and 13) in the fixed system have been calculated for the forward speed range up to 150 knots. Higher harmonics are not presented since they are small in comparison to the 2 and 4/rev components. The positive directions of the hub shears and moments were previously illustrated in Figure 3. The results presented in Figures 8 through 13 indicate that the rotor hub loads generally increase with

forward speed. All shears and moments except the steady yaw moment increase rapidly at forward speeds greater than 120 knots as the rotor operates increasingly in the blade stall environment.

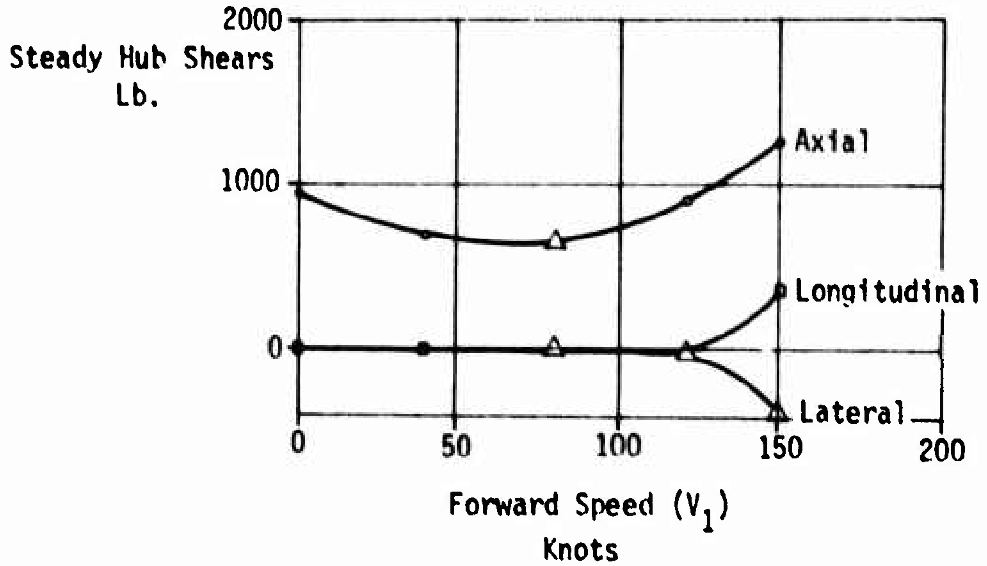

Figure 8. Tail Rotor Hub Shear Load Variations with Forward Speed (Steady Component)

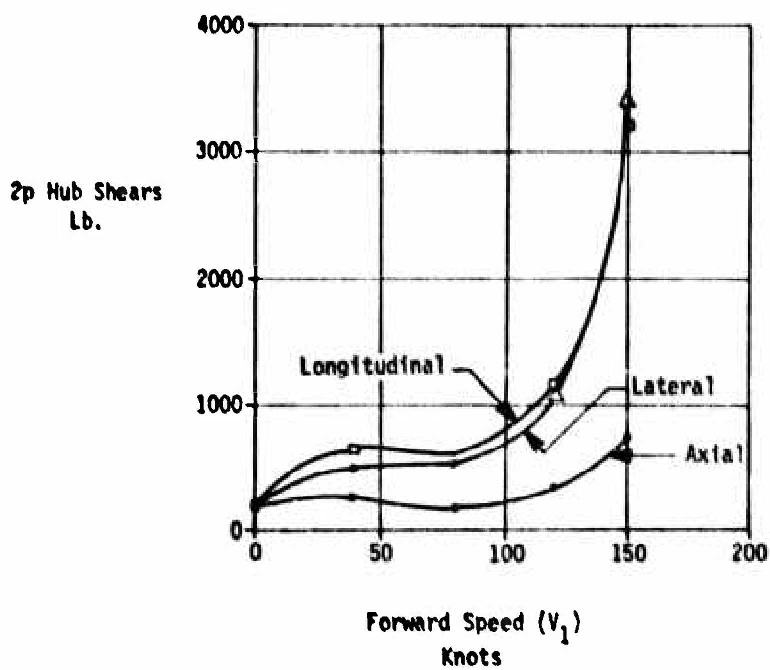

Figure 9. Tail Rotor Hub Shear Load Variations with Forward Speed (2 Cycles/Rev Component)

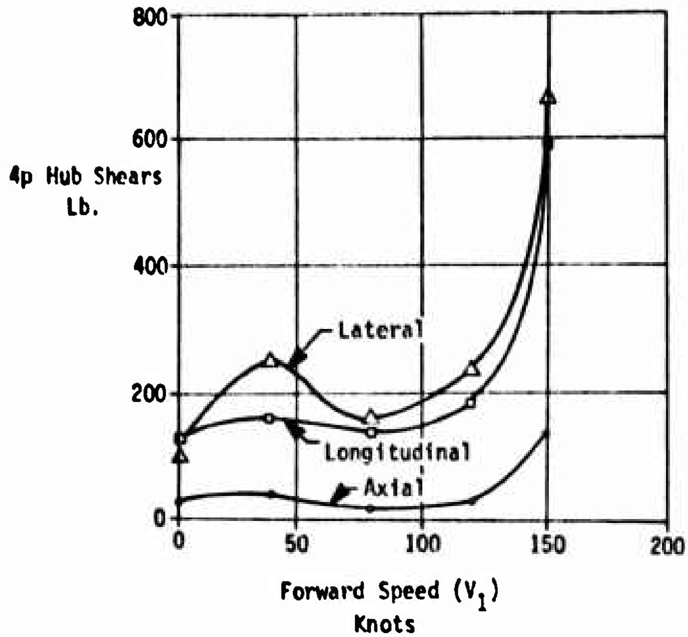

Figure 10. Tail Rotor Hub Shear Load Variations with Forward Speed (4 Cycles/Rev Component)

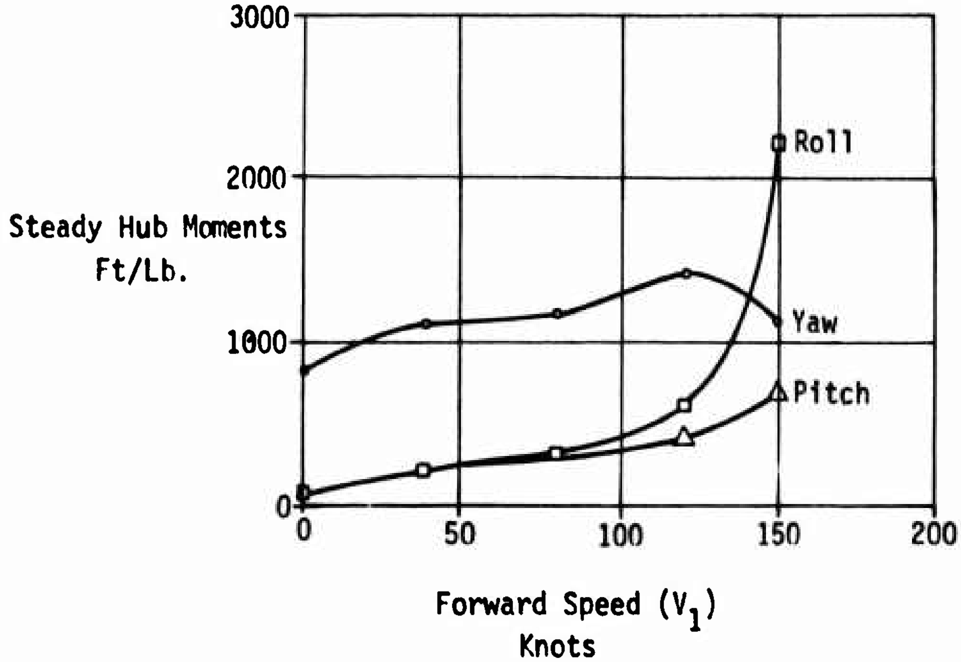

Figure 11. Tail Rotor Hub Moment Variations with Forward Speed (Steady Component)

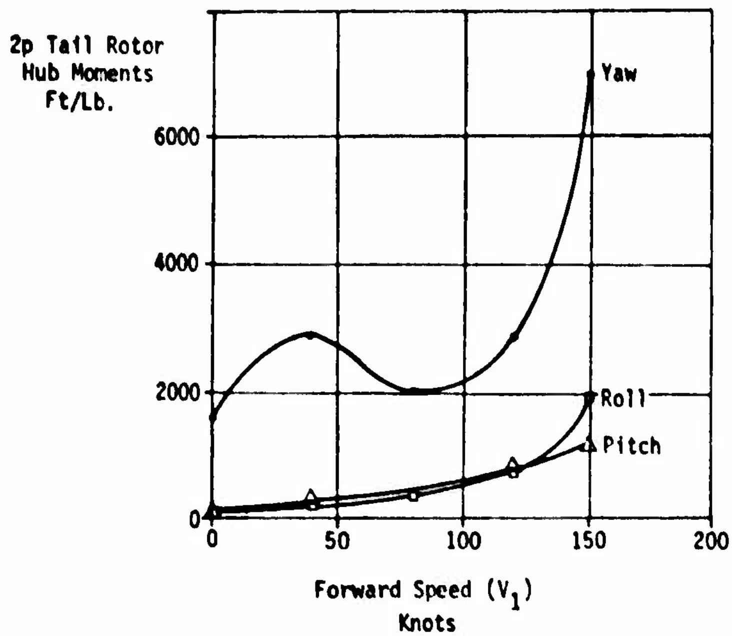

Figure 12. Tail Rotor Hub Moment Variations with Forward Speed (2 Cycles/Rev Component)

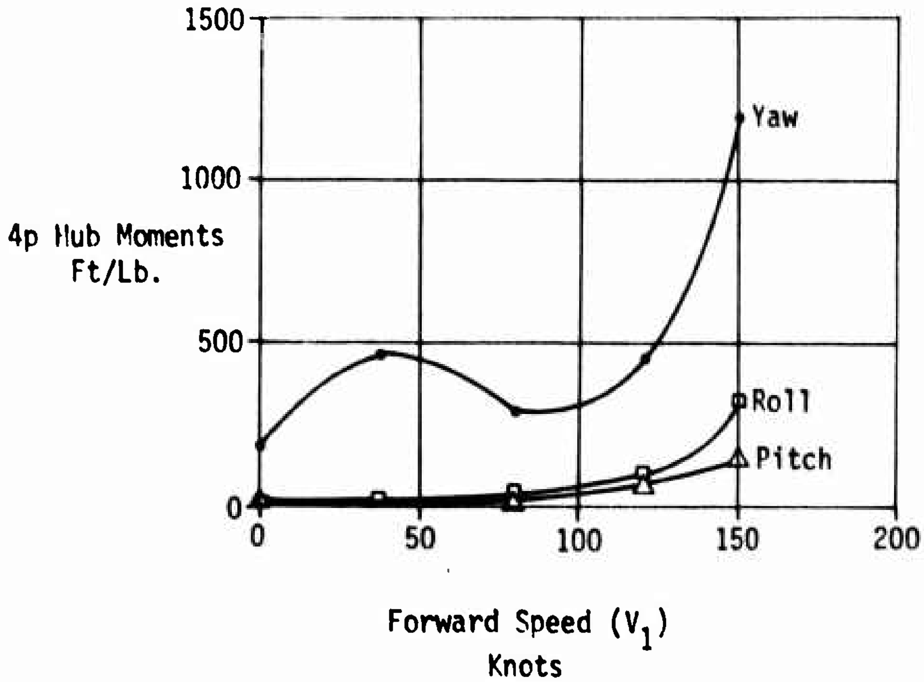

Figure 13. Tail Rotor Hub Moment Variations with Forward Speed (4 Cycles/Rev Component)

The vibratory hub loads are used in conjunction with the tail rotor pylon modes (Reference 3) presented in Table 3 to calculate the accelerations present at the tail rotor hub and gearbox.

Table 3. UH-60A Tail Rotor Pylon Modes Including Axial Modal Components

Mode No.	M_G lb sec^2/in	ω_G rad/sec	ζ_G %	ϕ_x in/in	ϕ_y in/in	ϕ_z in/in	$\phi_{\theta x}$ 1/in	$\phi_{\theta y}$ 1/in
1.	0.400	38.32	4.5	.264	.056	1.0	0.	-.004
2.	1.438	182.20	3.6	-.285	1.0	-.519	-.095	-.068
3.	11.980	389.53	1.8	1.167	0.9	1.0	0.	0.

Three linear and two rotational accelerations are computed and plotted in Figures 14 and 15 for harmonic loads of two and four times the rotor speed respectively. The accelerations generally increase with forward speed as expected from the behavior exhibited by the hub shears and moments from Figures 8 through 13. Significant increases in hub and gearbox accelerations are shown for forward speeds greater than 120 knots. It is noted that the 2/rev accelerations are much higher than the 4/rev accelerations.

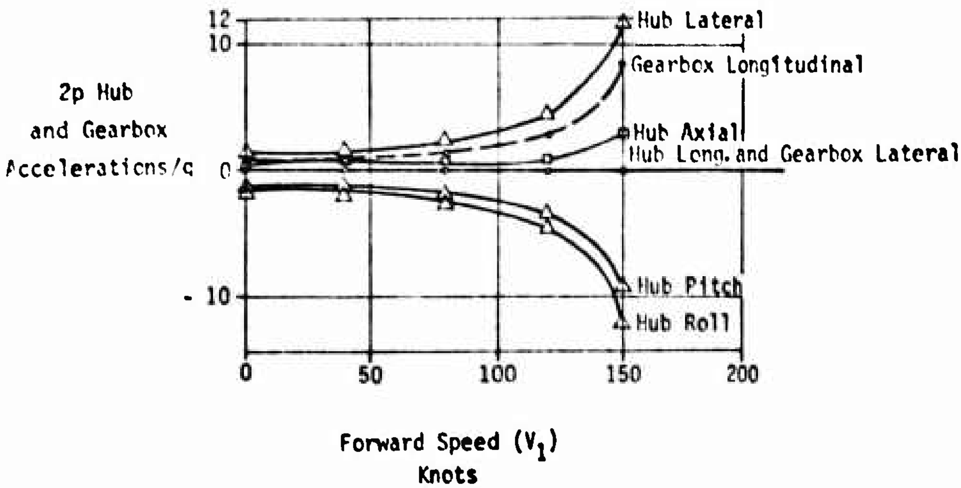

Figure 14. Tail Rotor Hub and Gearbox Accelerations with Forward Speed (2 Cycles/Rev Component)

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[3] UTTAS Aeroelastic Stability Analysis, Sikorsky Aircraft, SER-70545, Revision 2, May 1978.

(b) Cycles/Rev Component

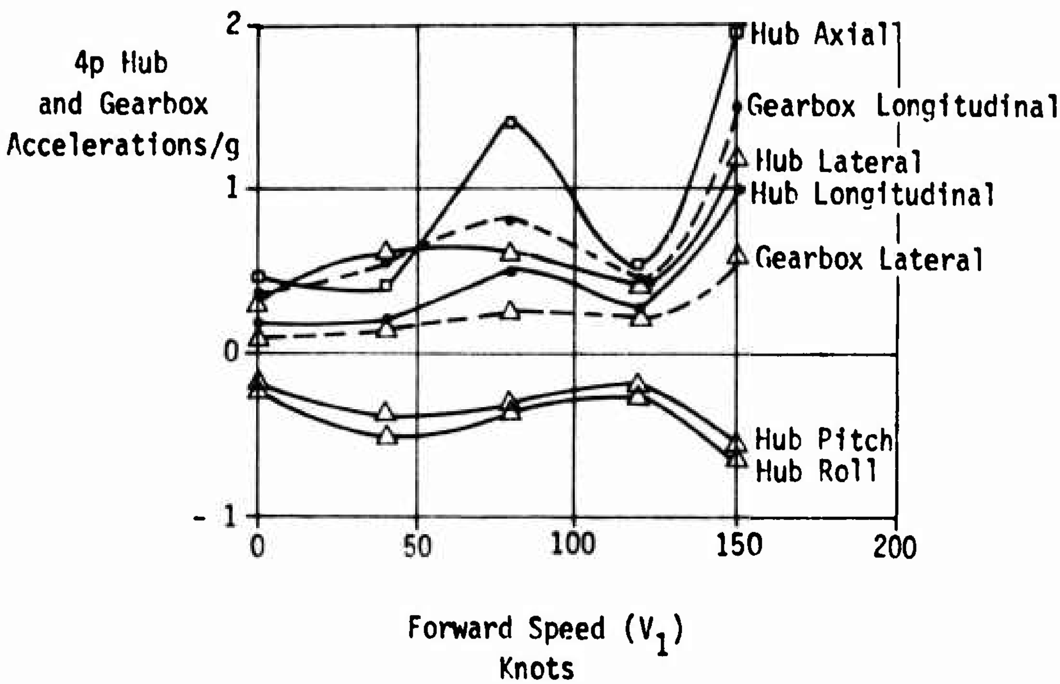


Figure 15. Tail Rotor Hub and Gearbox Accelerations with Forward Speed (4 Cycles/Rev Component)

The accelerations from Figures 14 and 15 are used to calculate the roll moment experienced at the gearbox-pylon attachment, which is a critical stress region. The steady and 2 and 4/rev roll moments at the gearbox-pylon attachment are shown in Figure 16. The highest loaded conditions occur at the maximum forward speed investigated, 150 knots. The 2/rev vibratory response is much greater than the 4/rev response. When added to the steady roll moment, the total 2/rev moment at 150 knots is approximately 20 percent of the ultimate roll moment value of 13,750 foot-pounds. This load level is acceptable to maintain a level flight operation and to conduct a safe landing to meet the required one-half hour criterion.

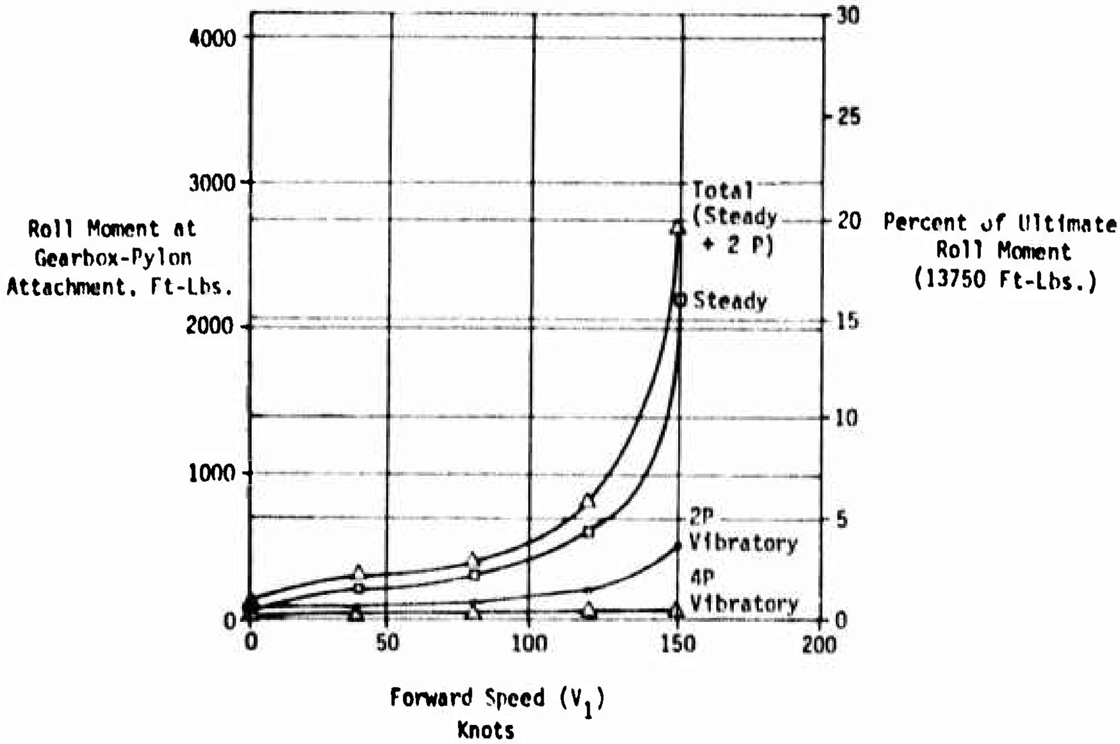
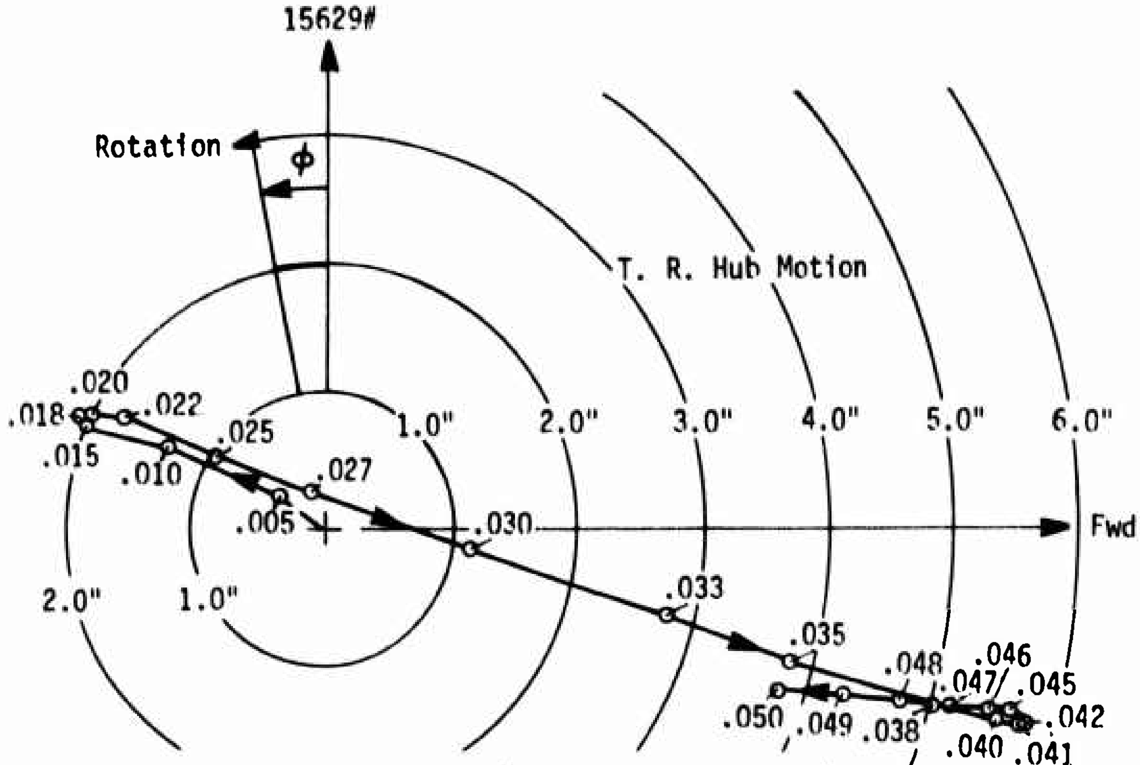


Figure 16. Variation of Roll Moment at Gearbox-Pylon Attachment with Forward Speed

STRUCTURAL ACCOMMODATION

The ability of the UH-60A helicopter to structurally accommodate the load caused by tail rotor blade loss has been examined. The analysis is based on the assumption that ballistic damage is limited to the complete removal of the outer 90% of one rotor blade or that area outboard of the back-to-back hub plates and that the load application time is limited to 360 degrees by removal of the opposing rotor blade. The effect of the centrifugal load on the empennage was examined using the UH-60A NASTRAN Structural Analysis Program to determine the deflections of the center of the rotor that can be expected to occur. Figure 17

shows a trace of the excursions of the rotor center through 360 degrees of the load application. With an imbalance load applied in the manner shown in the figure, the trace indicates that the rotor hub center can be expected to deflect approximately 2.2 inches rearward and 5.8 inches forward.



τ	φ	τ	φ	τ	φ
(Sec.)	(Deg.)	.027	196.	.046	335.
0	0	.030	218.	.047	342.
.005	36.4	.033	240	.048	349.
.010	72.7	.035	255	.049	356.
.015	109.	.038	276.	.050	364.
.018	131.	.040	291.		
.020	145.	.041	298.		
.022	160.	.042	305.		
.025	182.	.045	327.		

Figure 17. NASTRAN Plot of Tail Rotor Center Excursions

Due to the offset of the rotor hub center from the centerline of the tail cone and pylon, the unbalanced centrifugal load induces both torsion and vertical bending in the pylon and torsion, vertical, and horizontal bending in the tail cone. Examination of the analytical data verifies that these structural deflections all contribute to the motions of the rotor hub center. Quantifying the relative contributions of each of these structural deflections is beyond the scope of the contract. Preliminary examination indicates that the basic tail cone and pylon structure can sustain the unbalanced load over 360 degrees of rotor rotation.

The ability of the tail rotor drive shaft and tail rotor gearbox to accommodate the high centrifugal loads that accompany full blade loss has been examined. Comparing the centrifugal load against the design allowables that were established for these components of the UH-60A helicopter, the loads are expected to exceed the design limits, requiring redesign to accommodate full blade loss. It has been initially determined that the tail gearbox output can be sufficiently strengthened by a material change accompanied by the addition of a process change that will provide the necessary surface hardening characteristics. Further, it is expected that additional strength in the gearbox housing and local pylon structure can be incorporated to provide the necessary structural capability.

PITCH LINK ACCOMMODATION

Severing the tail rotor blade spar must be accompanied by severance of the pitch horn or link as well. The level of centrifugal load applied to the link attachment is a function of the weight of the blade remaining after ballistic damage has occurred. If the point of ballistic impact is well outboard on the rotor blade, the residual centrifugal force would be sufficient to effect automatic separation of the link as well. However, in the event that the point of ballistic damage occurred immediately outboard of the pitch horn, the resulting level of centrifugal force would be insufficient to be confident that the separation of the pitch horn would not be delayed causing the trajectory of the pitch horn to be toward the helicopter proper.

PART II SYSTEM DESIGN

The automatic tail rotor blade jettison system is designed to effect removal of the residual portion of a severed blade and, sequentially, its opposing blade within one full rotation of the rotor system. The system confines blade jettison to an aftward/downward direction to avoid possible secondary damage to the helicopter proper or its occupants. The system is fully solid-state to achieve maximum operational reliability and employs state-of-the-art techniques to prevent inadvertent actuation.

The system is comprised of four basic elements: an electrical power transfer to the rotor system, damage detectors that initiate system operation, a logic system that determines the blade pair to be jettisoned and provides means to control the direction of blade separation, and pyrotechnic devices that sever the blade spar and associated pitch horn for blade jettison. Figure 18 is a block diagram of the system showing the interrelationship of the basic elements. The prototype system designed for fabrication and evaluation testing differed from a fully productionized configuration in several respects. Development of the pyrotechnic devices was not required, allowing evaluation tests to be performed using an engineering-type rotary test stand previously developed for other programs. As a further expedient of the evaluation tests to be performed on the system, manual switching was incorporated to allow selectable faulting of the two portions of the logic circuitry.

The prototype system has been designed to be compatible with the electrical system, rotor system, tail rotor gearbox, and deicing kit of the UH-60A.

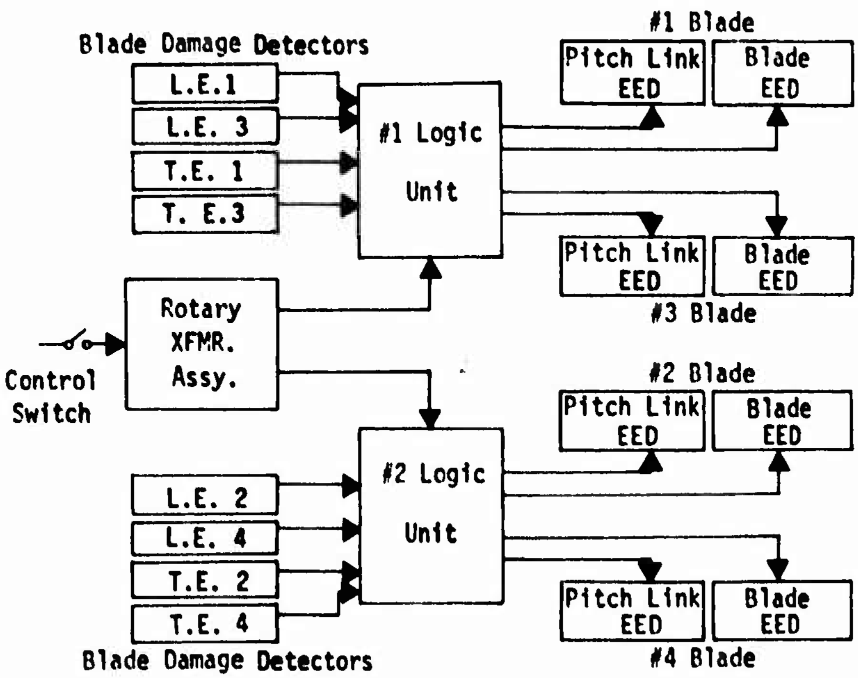


Figure 18. System Block Diagram

Figure 19 is the circuit diagram for the automatic blade jettison system. The diagram indicated the four basic elements of the system and the components that comprise those portions.

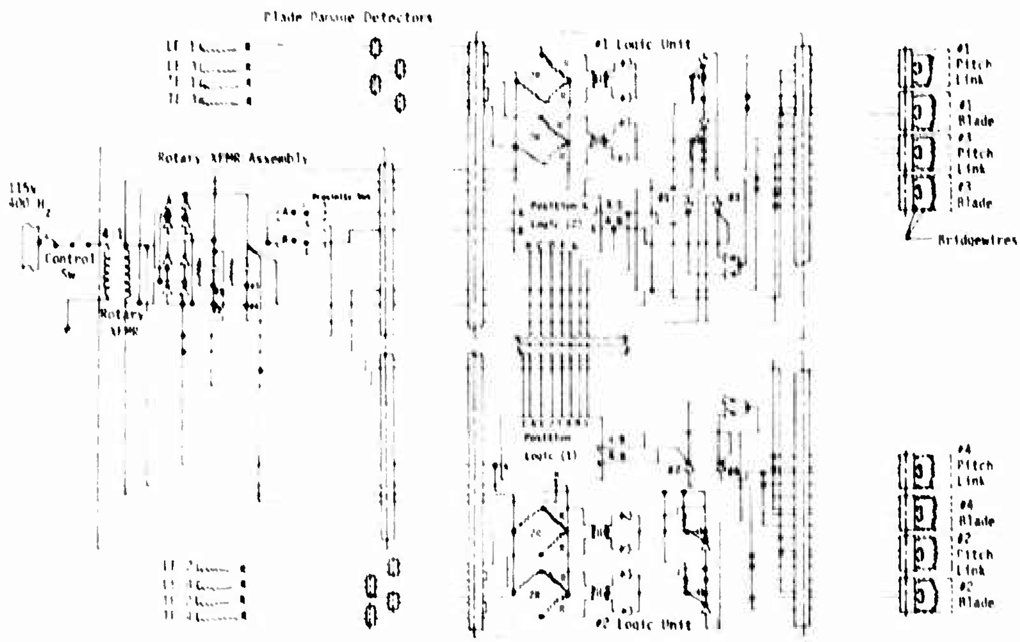


Figure 19. Tail Rotor Balance Restoration System Schematic.

ELECTRICAL POWER TRANSFER - Electrical power to operate the automatic blade jettison system is transferred from the nonrotating aircraft structure to the rotating rotor system by means of a rotary transformer. The transformer is comprised of two subassemblies: an inner frame with the primary windings of the transformer that mounts on the tail gearbox housing and an outer frame with secondary windings that is installed to rotate with the rotor system. The transformer is designed to accept 115 vac, 400 Hz aircraft power and to provide an output of 24 vdc that allows use of aircraft-type hardware. Unlike conventional transformers, the rotary transformer is designed to operate even though the components are moving with respect to each other and efficiency of the transformer's output is directly related to the narrowness of the gap between the induction plates of the two halves of the transformer. Although the output level of the rotary transformer is normally lower than that achievable with the conventional transformer, the output is more than adequate for the intended application.

The rotary transformer was selected as the electrical transfer device in lieu of the more conventional collector ring approach to minimize the requirement for field level maintenance. This not only reduces the operating costs but, perhaps more importantly, minimizes the possibility of field maintenance-induced malfunctions.

The 13-inch transformer for the UH-60A blade jettison system (see Figure 20) is the largest transformer of its type designed to date, the size of the device being dictated by a need for compatibility with the rotor blade deicing kit of the UH-60A. The transformer (part number 207073) was designed to meet Sikorsky performance requirements by Superior Electric Company of Bristol, Connecticut. Two proximity switches are assembled to the rotary transformer that gate the power output to the blade severing charges to control the direction of blade separation. These switches are installed with the transformer as a convenient and practical location to relate the gating function to rotor rotation and to maintain a kit-type approach for the installation of the blade jettison system. The proximity switches operate 90 degrees out of phase with respect to each other. Each switch is associated with one pair of opposing blade paddles. Each proximity sensor transitions from "closed" to "open" or the reverse as determined by the placement of metal targets that are installed in accordance with the blade jettison window requirement. The direction of blade jettison can easily be controlled by this design approach.

The proximity switches selected for the system are fully qualified with a mean-time-between-failures of 200,000 hours. The device, manufactured by Eldec Corporation of Lynnwood, Washington (part number SCD8-260), has a switching rate capability of greater than 20,000 cycles per minute and has an operating temperature range of -65° to +180°F.

Included also as a part of the rotary transformer assembly is power rectification and charge storage capacitors that provide sufficient output to initiate the electro-explosive detonators that, in turn, initiate the blade severing devices. The relatively high power requirement to

achieve reliable initiation of the four EED's for jettison of the blade pair is achieved by capacitance discharge. Two storage capacitors are installed that charge following arming of the system by the pilot.

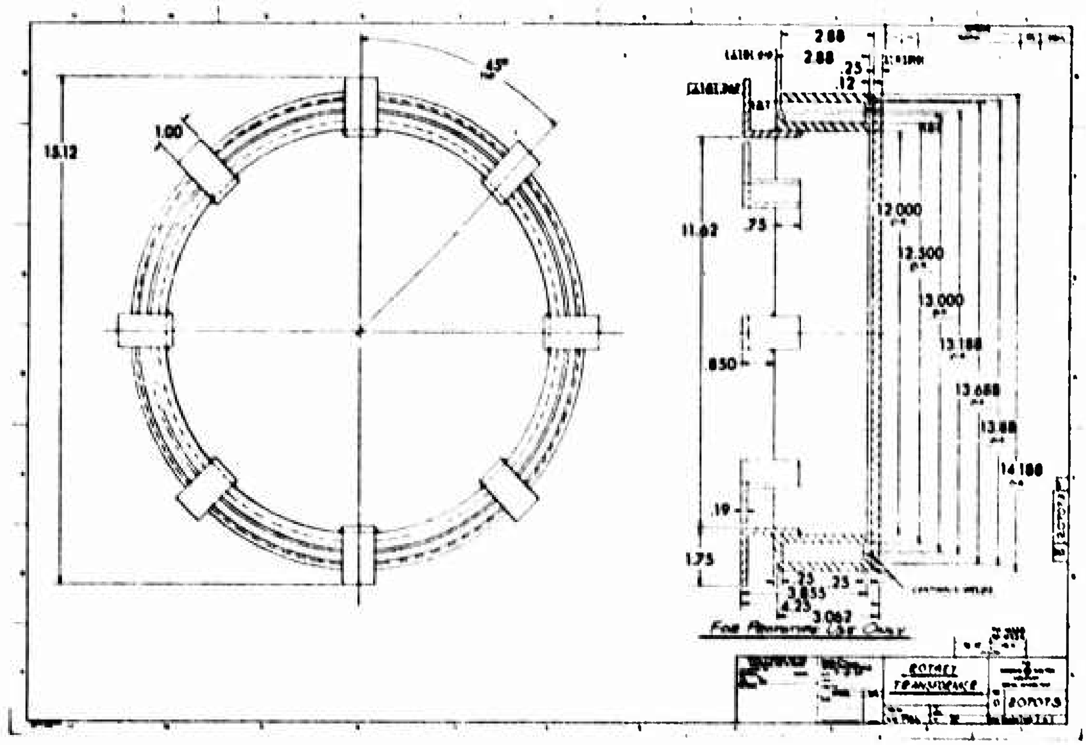


Figure 20. Prototype Rotary Transformer Fully Compatible with the UH-60A Tail Rotor Gearbox and Deicing Unit

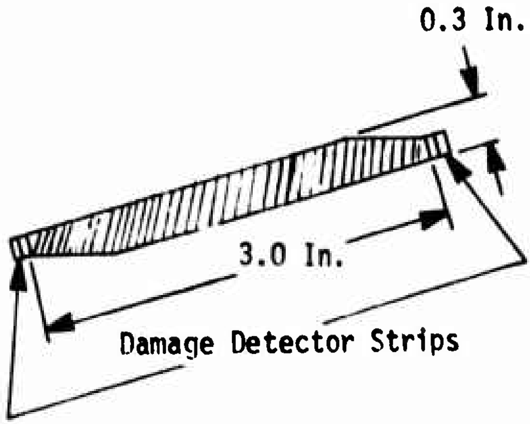
DAMAGE DETECTORS - Two sets of detectors are employed with each blade paddle to detect blade spar damage. Specifically, they are intended, by the manner in which they are installed, to differentiate between ballistic damage to the blade that is of a tolerable nature and that which will result in an intolerable rotor imbalance. This is achieved by locating independent detectors along both the leading edge and trailing edge of the blade spar. The logic system is designed to require an input from both detectors in order to activate the blade severing pyrotechnic devices. In this way, ballistic (or other) damage that does not cause spar separation will not result in blade jettison.

The detector assembly for the UH-60A is comprised of two thin strips of graphite epoxy, the same material from which the spars are fabricated, to obtain the same physical characteristics and thereby avoid differential elongations due to temperature and centrifugal force. The two halves of the detector assembly are insulated from each other and bonded together. For production installations, the detector assemblies are installed by bonding in position along the edges of the spar prior to application of the outer fiberglass wrap. For test applications where blade retrofit is required, the detector assemblies are potted in position along the spar edges following preparation of the blade by longitudinal saw cuts to a depth that is sufficient to expose the spar edges.

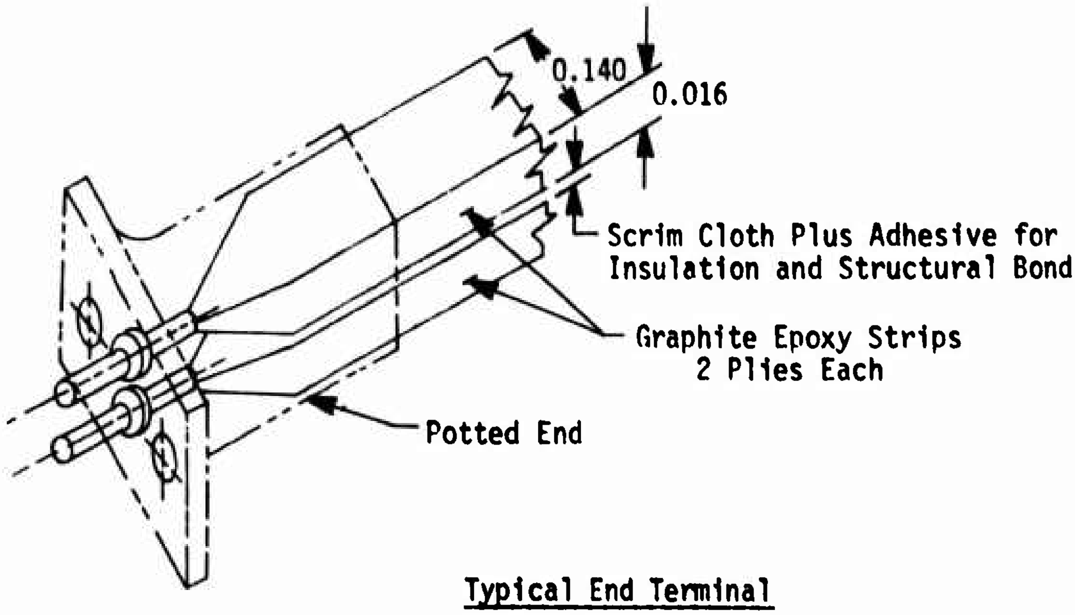
The electrical properties of the graphite epoxy allow the use of the material as a conductive element having a useful resistance level for the intended application. The detector assembly is essentially a circuit that serves to balance a conventional wheatstone bridge. As long as the circuit's resistance level remains within acceptable tolerance limits, the logic system remains inactive with regard to blade separation initiation.

In the event that the detector assembly circuitry is interrupted or the resistance level becomes significantly changed beyond the established tolerance limits, the bridge becomes unbalanced and the logic unit "senses" a fault. When both circuits exhibit faults, the logic unit has "sensed" a failed spar condition and blade jettison is initiated. In order to effect a positive indication of resistance level change, the detector assembly includes the installation of a resistor at the outer end of the spar; circuit interruption then results in significant resistance level change. The resistor further serves to allow tuning of the circuit, if required. The inner end of the detector assembly terminates in a small potted end fitting that has posts for attachment of the wires leading to the logic unit. This connection is located under the rubber boot near the root of the blade and is provided to allow rapid rotor blade change.

Figure 21 shows the general arrangement of the detector assembly. Detail design of the detector assembly was not required for the evaluation test work and was beyond the scope of the contract.



Graphite Epoxy Spar Cross Section



Typical End Terminal

Figure 21. Damage Detector Assemblies (Fabricated from Spar Material for Elongation Compatibility)

LOGIC UNIT - This unit is comprised of a number of switches (normally open) that gate the power output to the proximity sensors. These series oriented switches change from "Open" to "Closed" when the associated detector assembly faults and its wheatstone bridge becomes unbalanced. Silicon controlled rectifiers (SCR) were selected to perform the switching function to achieve highly reliable, solid-state performance. The logic unit also includes position logic circuitry that allows two proximity sensors to perform the timing function for the entire rotor. This is achieved by means of two additional SCR's that switch over the proximity sensors to the affected blade pair. Also included in the logic unit are the remaining three legs of the wheatstone bridge. Two logic units are required for the four-bladed UH-60A tail rotor system.

ROTOR BLADE SEVERANCE - Pyrotechnic severing devices are installed at the root of each rotor blade and on the pitch horn to effect jettisoning of the blades. The devices are both comprised of linear shaped charges supported in silicon rubber and installed in fiberglass housings. The spar severing devices are installed adjacent to the spar, immediately outboard of the rotor hub plates under the existing rubber boot of the blade. The pitch horn severing devices are installed at the horn's smaller, outer end and are nested in the cavity of the component.

The development of the actual blade and pitch severing devices was not required by this contract. Certain preliminary work has been performed which verifies that the UH-60A graphite epoxy spar can be severed by a linear shaped charge of acceptable charge size to be compatible with the intended application. Figure 22 is a photograph of a segment of graphite epoxy spar assembly of the UH-60A material type and thickness that was successfully severed by 200 grains per foot charge loading in the cross-grain manner required for a blade separation. This test performed by Teledyne McCormick Selph, was a preliminary effort only to ascertain feasibility of severing graphite epoxy spars by pyrotechnic means and no attempt was made to optimize the charge size. It is estimated that the production severing charge would be lead-sheathed and would fall in the size range of 125 to 150 grains per foot using RDX (Cyclotrimethylenetrinitramine).

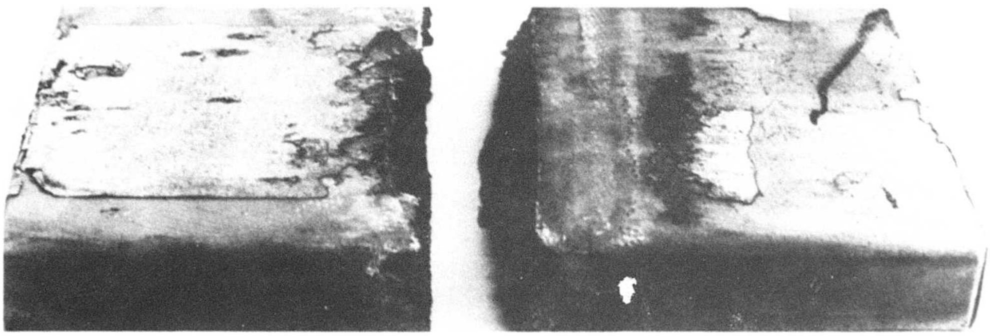


Figure 22. Graphite Epoxy Spar Severed by Linear-Shaped Charge

The chevron-shaped LSC's of both the blade severance assembly and the pitch horn severance assembly are initiated by electro-explosive detonators (EED) that are installed in the housings. Two approaches are considered to be acceptable for the severance assemblies. The first employs a single dual bridgewire EED for LSC initiation and achieves redundant initiation by means of the duality of the EED's bridgewires. The other approach, expected to be superior in terms of severance reliability, employs two individual EED's, each having single bridgewires. The EED's are physically located at opposite ends of the LSC to maximize the redundancy capability.

The blade and pitch horn severance assemblies are initiated simultaneously by the electrical power output from the logic unit. Quick disconnects are provided to accommodate blade removal/installation. The built-in test capability of the system allows preflight verification of circuit continuity up to, and including the bridgewires of the EED's to avoid a maintenance-induced error during blade replacement.

Figure 23 shows the general arrangement of the various components of the system installed on the UH-60A tail rotor.

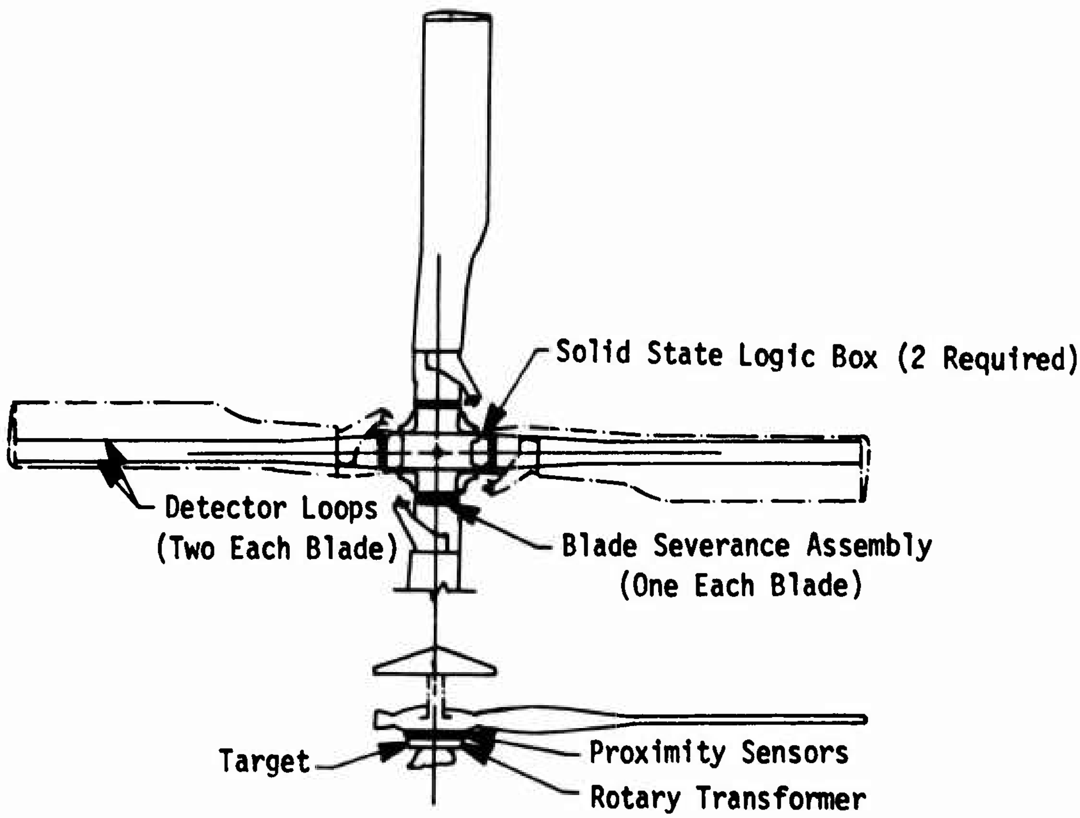


Figure 23. General Arrangement - Tail Rotor Blade Jettison Concept

SYSTEM SAFETY AND RELIABILITY CHARACTERISTICS - The following general discussion pertains to the characteristics that are, or can be, incorporated into a production version of the automatic blade jettison system that enhance reliability of operation and that enhance safety with use of the system.

RELIABILITY

- Electrical components are selected to be working at approximately 50% of their rating. This practice was not employed during prototype development in order to allow any possible problem areas to surface.
- Entire system circuitry can be preflight checked to verify operational status. All test functions, however, are removed from the airborne system in order to minimize system complexity and part count.

SAFETY

- The system incorporates three SCR interlocks ahead of the firing of the EED's to prevent inadvertent blade jettison without prior loss of a blade or blade segment.
- A control switch is employed to allow the system to be armed at the discretion of the pilot.
- The storage capacitors are subjected to intentional discharge by bleed resistors following shutdown to maximize safety during performance of maintenance.

IMPACT DAMAGE

- The logic units are fully encapsulated.
- The rotary transformer assembly employs encapsulation.
- The blade damage detector circuits and terminal resistors are buried within the leading and trailing edges of the blades.
- The pyrotechnic linear shaped charges are insensitive to impact and are located such that the possibility of impact damage is remote.

HEAT DAMAGE

- All components selected are compatible with the temperature requirements of the UH-60A.

LIGHTNING

- Tail rotor blades are covered with aluminum mesh that is grounded to the airframe. Lightning strikes will be conducted on the blade surface and not through the graphite epoxy detectors.

MAINTENANCE

- The EED's are disarmed during maintenance when the test box harness is installed to prevent inadvertent system initiation during maintenance of the system.
- Power levels employed to conduct circuit continuity checks are well below the level required to initiate the EED.
- System design is such that two ground faults are required before the system can actuate; ground faults are detected in the preflight test box.

STATIC ELECTRICAL DISCHARGE

- The aircraft has adequate static discharge wicks on the stabilator trailing edges to prevent static charge buildup.
- Any small corona discharges that may develop from the tail rotor blades are insufficient to set off the blade severance system.

STRAY VOLTAGE OR INDUCED CURRENTS

- All SCR's incorporate anode/gate shunt capacitors to prevent inadvertent change of switch state.
- Wheatstone bridge resistors are shielded to prevent inadvertent change of switch state.
- The blade severance system wiring is separated to the maximum extent possible from the tail rotor blade deicing system.

PART III SYSTEM FABRICATION AND EVALUATION

System performance evaluation has been completed on a prototype fabricated in accordance with the schematic shown in Figure 19. The prototype system includes a rotary transformer, electrical power rectifiers, two logic units, two proximity sensors and targets, and fuses to simulate initiation of EED's. The system evaluated includes a capacitance discharge concept to initiate the fuses that provide the required indications to verify proper system performance and timing.

Figure 24 shows the various components of the system with the covers removed. For the test program, the electronic components are attached to a mounting plate that secures to the rotating portion of the rotary transformer. The fuses used to provide initiation indication are installed in a light assembly at the four quadrants that represent the associated blade positions. A switch box is visible that allows either logic unit to be independently selected for testing. The slip ring assembly located at the center of the system is included as test equipment to transmit the system initiating faults and to pick off output signals that verify positional relationship of the initiated components during the tests.

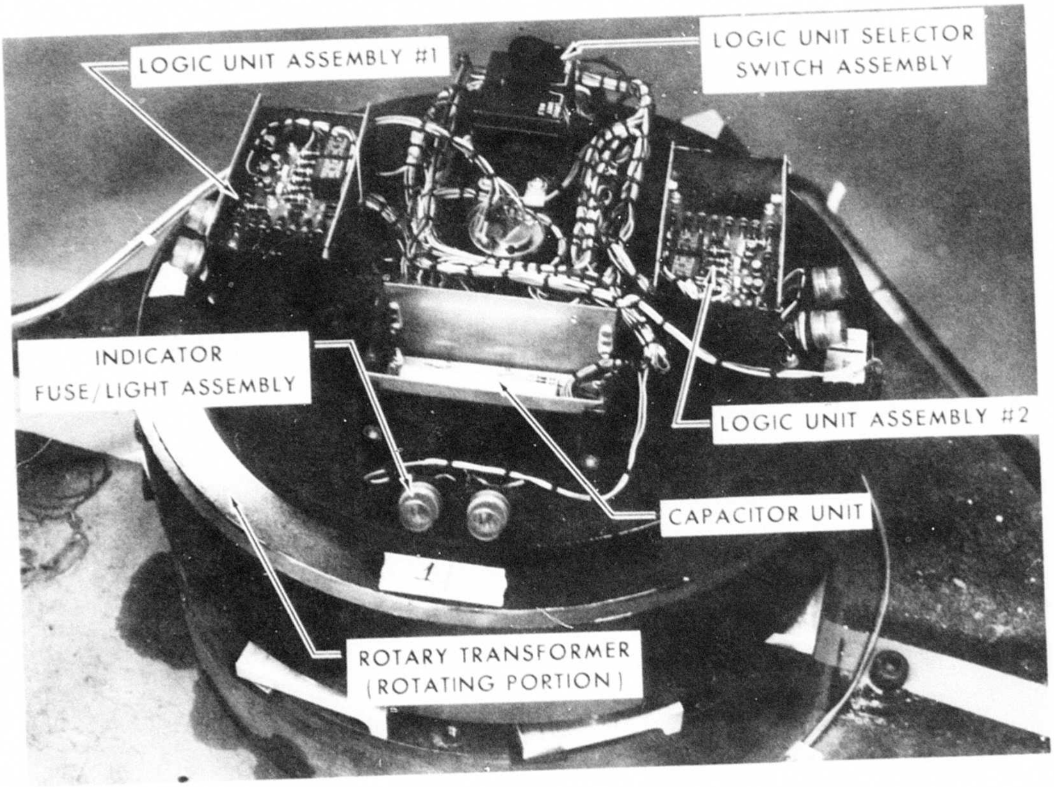


Figure 24. Prototype System Installed in Test Stand

The prototype system was installed on an engineering test stand previously developed for similar test work and upgraded to provide the high-speed capability consistent with a tail rotor application. The stand, shown in Figure 25, includes a protective drum around the upper area for safety reasons during the test operations. The test stand is belt-driven by a variable speed motor capable of rotating the system to speeds up to 1800 RPM. Also visible in Figure 25 is a small control panel containing the switches required to control the test stand drive motor to control power to the rotary transformer, and to introduce the faults that simulate interruption of the damage detectors.

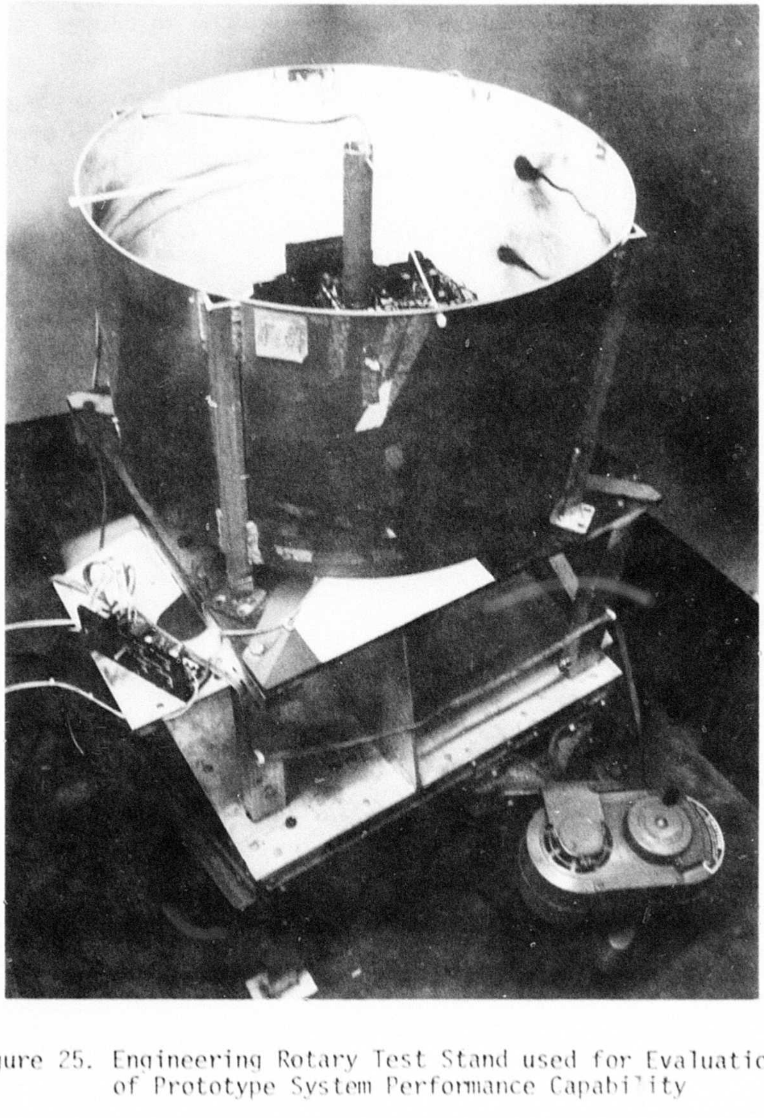


Figure 25. Engineering Rotary Test Stand used for Evaluation of Prototype System Performance Capability

EVALUATION TESTING - Tests were run to determine the positional relationship of certain components of the prototype system in order to verify that the system meets the jettison window requirements of the UH-60A helicopter. This was accomplished by displaying EED initiation (simulated by the use of fuses) and the open/closed status of the proximity switches using a Techtronix 654 scope with 4 trace memory. This approach allows the measurement of the time lapse between the change in state of the proximity sensor and the initiation of the EED. Further, the display provided visual verification that both blades would be jettisoned at the proper location as controlled by the location of the target. It should be noted that the EED's are initiated at a change in state of the proximity switch and the data recorded, therefore, indicates initiation only at the point where the proximity switch changes from open to closed state or the reverse.

In accordance with the system performance test plan, 28 test runs were performed using the engineering rotary test stand to verify proper prototype performance throughout the rotational speed range of 70% N_R to 150% N_R in accordance with:

$\%N_R$	Equivalent RPM	Number of Tests
70	834	2
80	954	2
90	1073	2
100	1192	12
110	1311	2
120	1430	2
130	1550	2
140	1669	2
150	1788	2

The prototype system successfully met the performance requirements in all tests performed, and compatibility with the UH-60A window for tail rotor blade jettison has been verified. Due to the repetitive nature of the data obtained, only the data for the 100% N_R run is included here (see Figure 26); the remainder of the data is included as Appendix A to this report. Figure 26 is the photographic record of the Techtronix scope with the various elements defined. By using this data recording approach, it was possible to record data with the required degree of accuracy.

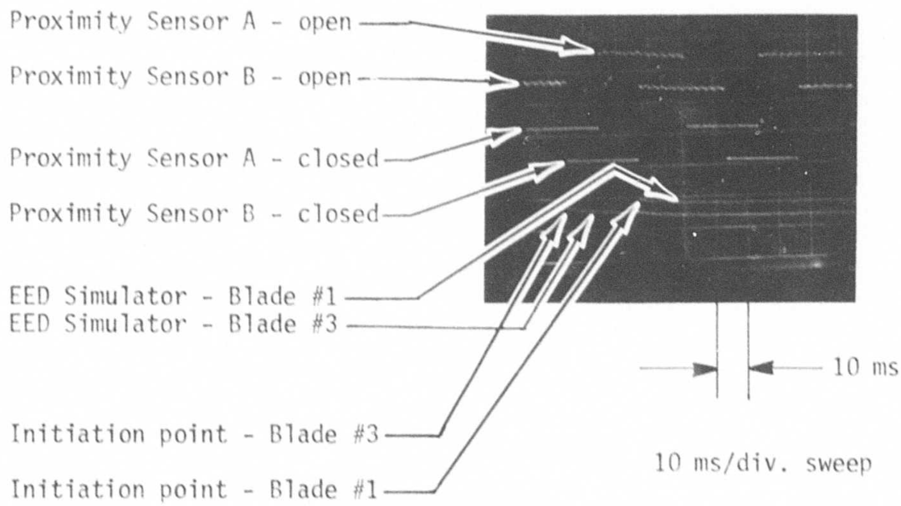


Figure 26. Prototype Performance Data - 100% N_R (1192 RPM)

The testing performed in this manner confirmed that the prototype system components were operating properly, in correct sequence, and with sufficient speed to effect blade jettison within the window tolerance limits established. An additional test was needed to verify that the severance signal occurred at the proper rotational position with respect to the location of the window. This was verified by the use of a strobe light, triggered by the output signal from the appropriate proximity switch. Since the oscilloscope record verified that the response times of the components were proper, positional accuracy of the system is a function of the response time of the proximity sensor. By utilizing the output of the proximity sensor to trigger the strobe light, rotational indexing and the output variance throughout the speed range of 834 RPM to 1788 RPM could be determined. Using this technique, it was determined that the positional characteristics of the system were well within the tolerance limits of the UH-60A blade jettison window and that the point of blade jettison varies less than six degrees throughout the entire speed range. Since the 150% N_R speed is well beyond the normal operating limits of the UH-60A helicopter, the variation is considered of negligible significance.

PART IV FLIGHT SIMULATION ANALYSIS

An extensive simulation analysis program was conducted to determine the effects that the programmed blade jettison can induce on the performance characteristics of the UH-60A helicopter and to assess the handling qualities to be expected. The Sikorsky General Helicopter (GEN HEL) UH-60A flight dynamic simulation program and PDP-10 Hybrid Computer were employed to study the changes in helicopter trim conditions. By coupling a new subroutine for the transitional, four, to three, to two-bladed rotor condition with the basic GEN HEL Program, it was possible to ascertain the effect of the imbalance loads on the helicopter. To ascertain the change in handling qualities to be anticipated with the blade jettison, the GEN HEL Program was interfaced with the Sikorsky cockpit simulator for qualitative pilot assessment in the normal four-blade mode followed by transition to the two-blade mode.

METHODOLOGY

The tail rotor blade severance scenario was considered as four consecutive, but distinct, handling qualities situations and the GEN HEL Program was employed to study all four of these situations:

1. Helicopter trim with four tail rotor blades
2. Severance transition from four-to three-to two tail rotor blades
3. Pilot response to loss of two opposing blades
4. Helicopter trim with two rotor blades, if possible

The basic GEN HEL Program was used to obtain UH-60A trim conditions with either four or two tail rotor blades for flight conditions and loading configurations that represent the most critical - but realistic - situations for tail rotor blade loss. A subroutine was written to program, in detail, the loads at the tail rotor during the imbalance period. This subroutine was coupled with the GEN HEL Program to produce the proper interplay between the response of the helicopter and the loads generated at the tail rotor. The UH-60A GEN HEL Program was interfaced with the cockpit simulator to determine how well the aircraft could be recovered from the loss of two opposing tail rotor blades and the flight conditions that would have to be assumed to continue flight following initial recovery from the helicopter's reaction to tail rotor blade loss. Table 4 presents the axis system, parametric definition, and sign conventions used in the program.

BASIC PROGRAM

The GEN HEL Program is an analytic helicopter model developed by Sikorsky Aircraft and is used as the primary handling qualities design analysis tool. This computer program is a fully coupled, nonlinear model of the helicopter, containing detailed descriptions of the components of the

helicopter that affect the handling qualities of the aircraft. GEN HEL is used for solving aircraft trims for a variety of flight conditions such as level flight, autorotation, and climb, and for solving the dynamic response of the helicopter to control inputs or aircraft disturbances.

The GEN HEL program is arranged in modular form, grouping descriptions of the basic helicopter elements such as the main rotor, tail rotor, and fuselage separately to allow uncomplicated modification of particular components, if necessary. One of these particular files, called the specific file, describes all components of the helicopter that are unique to a particular model. When the specific file describing the UH-60A descriptive input and control system is assembled with the rest of the general files of GEN HEL, the resulting program then models the UH-60A helicopter. This is the basic UH-60A simulation model around which this tail rotor blade severance handling qualities study was developed.

SEVERANCE TRANSITION ROUTINE

To simulate the buildup of centrifugal forces in the tail rotor during the three-bladed transition period and the transfer of this load imbalance to the rest of the helicopter, a special routine was incorporated into GEN HEL that calculated the inertial loads in the three remaining blades as the tail rotor proceeded to rotate in the discrete digital program solution. The inertial loads were summed for all three blades, and the resulting forces and moments imparted on the helicopter were solved. Additionally, the calculation of the aerodynamic thrust produced at the tail rotor existing in the basic version of GEN HEL was modified to reflect the proper decrease in thrust that occurred as the number of blades was reduced.

An associated logic routine was written into GEN HEL to distinguish when the program user elected to lose the first tail rotor blade due to ballistic damage during the dynamic simulation of the helicopter. This logic then routed the program through the additional imbalance equations and kept track of the location of the remaining unbalanced blade in order to determine when it entered the jettison envelope of tail rotor azimuth. Once the imbalanced blade reached this envelope, the program logic then left the tail rotor imbalance equations and proceeded with simulation of the helicopter using only the basic GEN HEL program again, but in the two tail rotor blade mode. Figure 27 is a flow diagram that depicts the logic procedure employed.

Because the tail rotor rotates at such a high speed, the duty cycle (simulated time between program updates) had to be made small enough to sample the tail rotor imbalance whenever the severance transition period was being studied. For simulation of the severance transition, a duty cycle was selected as a function of rotor speed to yield a change in tail rotor blade azimuth of 20 deg each duty cycle. This duty cycle was approximately seven times greater than the 1/50 second (50 cycles per second) normally used for dynamic simulation.

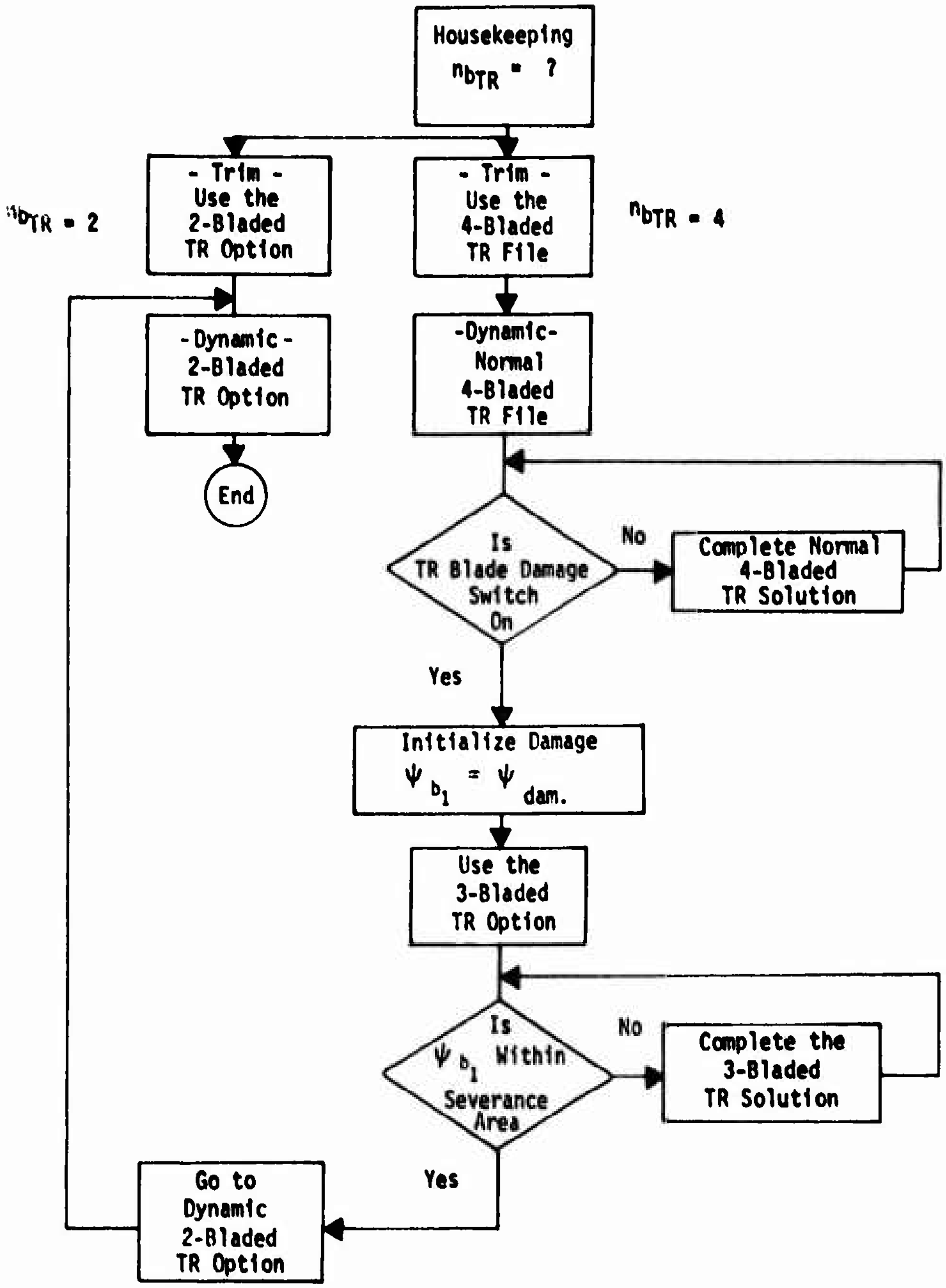


Figure 27. Flow Diagram of the Logic Modification used with GEN HEL (UH-60A) Tail Rotor File to Simulate Blade Severance Sequence

CASES STUDIED

Aircraft level flight trims and severance period transitions were studied with variations in aircraft gross weight, fuselage station cg location, density altitude, and rotor speed. These conditions were studied over a speed range from hover to 150 knots. Level flight was considered the most relevant flight condition since in all likelihood after losing tail rotor blades, the primary concern would be to return to base, not to continue the mission. Therefore, unusual or stringent flight conditions were not considered following the loss of two tail rotor blades.

Autorotation is not a demanding flight condition if two tail rotor blades are lost. Autorotation demands from directional control are not critical even when two tail rotor blades are lost because the directional control requirements are not near control system limits.

TWO-AND FOUR-BLADE TRIMS

Four trim cases were studied in accordance with the parametric mix shown below with trim data acquired at 0, 40, 60, 80, 100, 120, 140, and 150 knot speeds.

Case	$h_{Density}$	G W, LB	FSCG	Rotor N_R Speed
1	SLS	Low (16450)	Aft (360.2)	100%
2	SLS	High (19900)	Aft (360.2)	100%
3	10,000	High (19900)	Aft (360.2)	100%
4	10,000	High (19900)	Fwd (347)	100%

Baseline trims were gathered using GEN HEL for the UH-60A with four tail rotor blades. Trims were then attempted for the same conditions, only with two tail rotor blades.

The result of this exercise showed that the helicopter could be trimmed with two tail rotor blades throughout the speed range for low altitudes even at high gross weight. At higher altitudes, power requirements increase and there are conditions near hover and high speed that cannot be trimmed.

For all of the cases studied at nominal (100%) rotor speed, there always was some speed range at which the helicopter could be trimmed with only two tail rotor blades. This speed range, 60 to 100 knots, corresponds to the lower power requirements of the helicopter (see Figure 28). At rotor speeds of 95% N_R and 110% N_R (see Figure 29), the helicopter could be

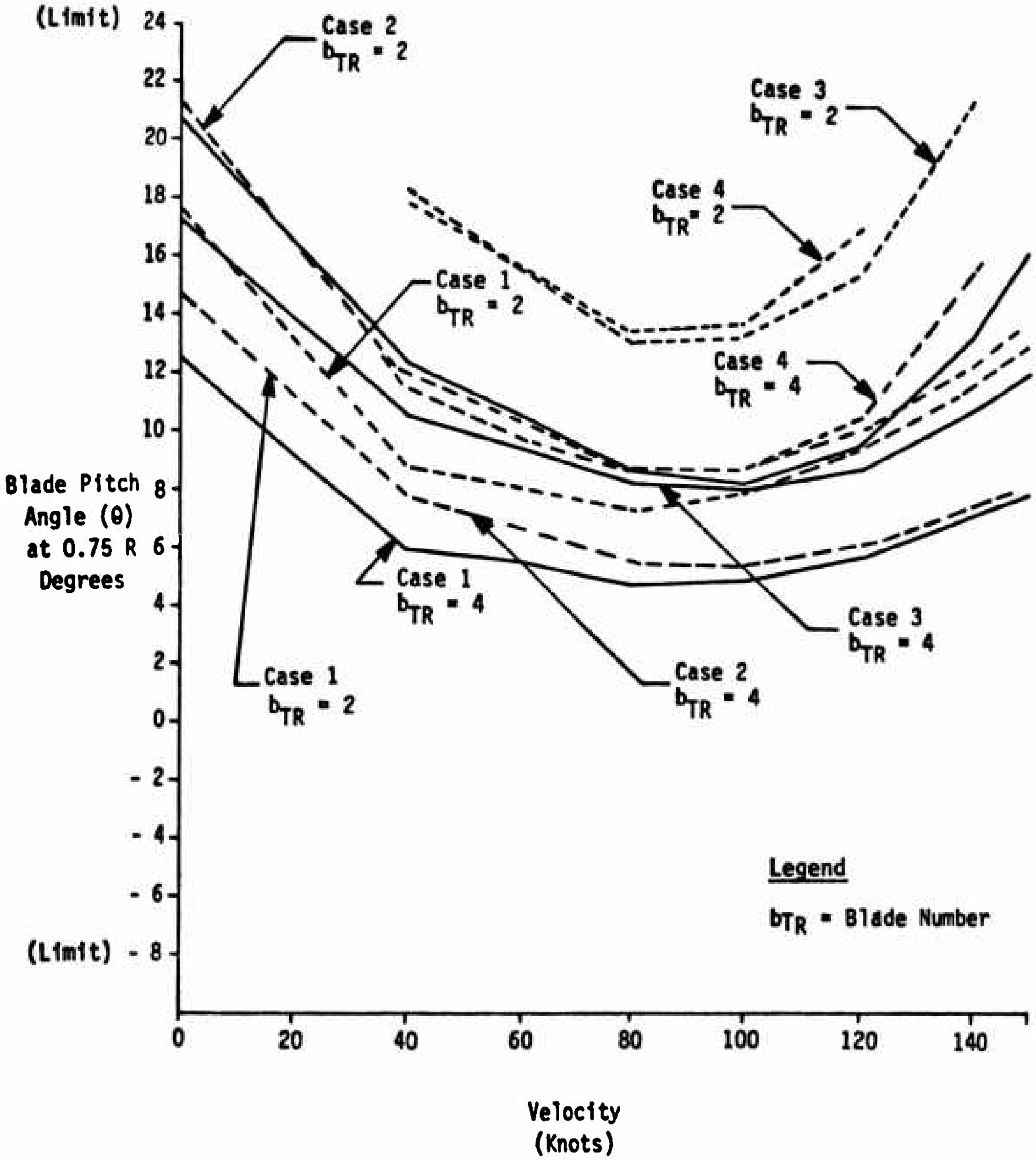


Figure 28. Two-and Four-Bladed Trims (100% N_R)

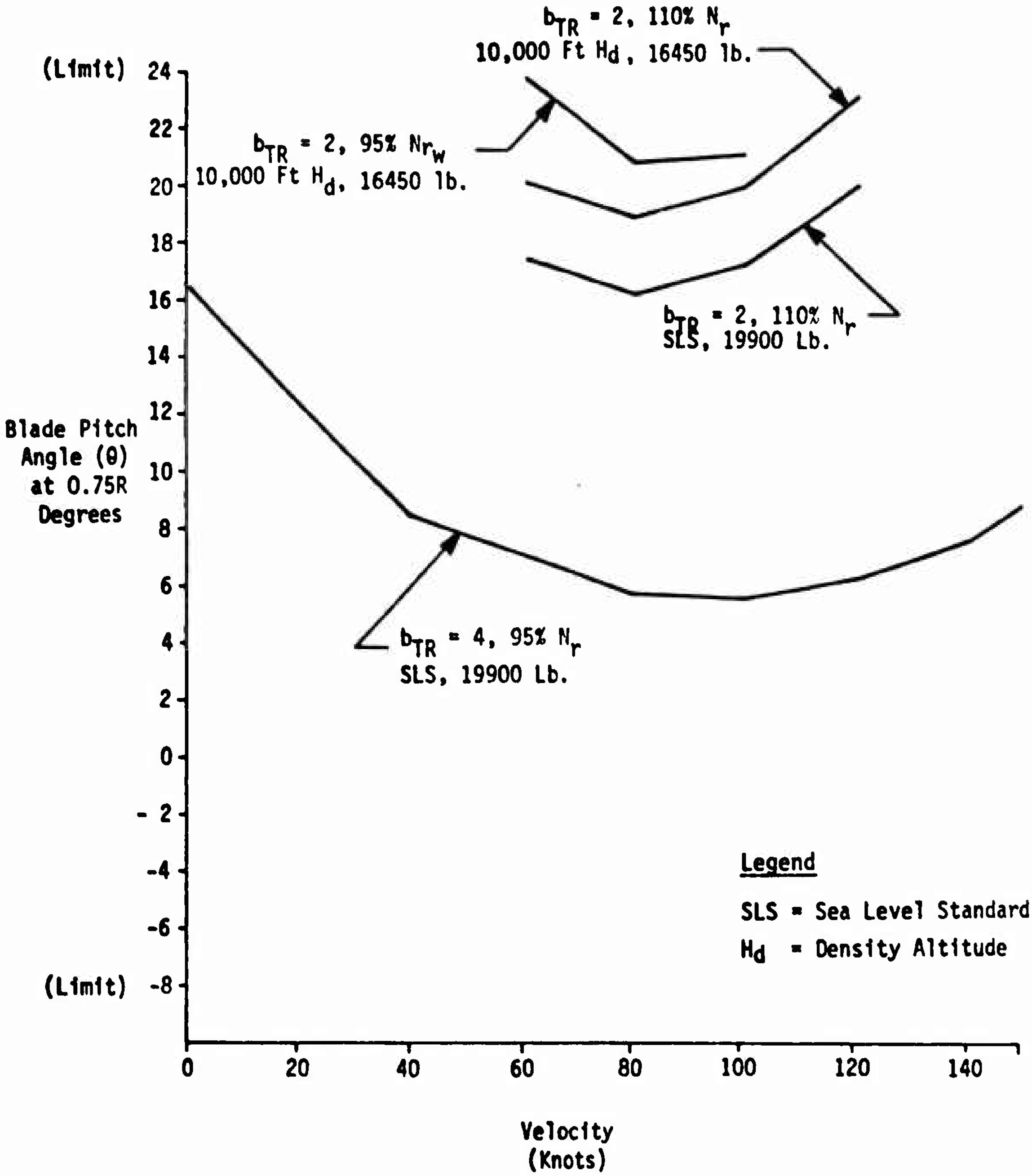


Figure 29 Two- and Four-Bladed Trims (95% N_R and 110% N_R)

trimmed at this same speed range with only two tail rotor blades. However, two blade trims become difficult (if not impossible) at any speed for low rpm at high altitudes, necessitating altitude reduction to achieve trim. Low rpm trims with two tail rotor blades are not advised because it becomes difficult to generate the required tail rotor thrust at reduced rotor speed.

These two tail rotor blade trim results indicate that for many flight conditions, the helicopter can be trimmed with only two tail rotor blades at any possible speed. At most flight conditions there exists a speed range (corresponding to the minimum power requirement) where the helicopter can be trimmed with only two tail rotor blades.

Naturally, trims with only two tail rotor blades provide less control margin and control sensitivity than the four-bladed situation, but under emergency conditions this situation could be considered acceptable.

For record, trim data printouts for the two-bladed and four-bladed conditions are provided in Appendix B.

AIRCRAFT "HANDS OFF" RESPONSE FOLLOWING BLADE LOSSES

The responses of the aircraft with no pilot correction for both the SAS OFF and SAS ON conditions are relatively mild, and should be acceptable to the pilot. These time history responses of the hands-off conditions, shown in Figures C-1 to C-12 (see Appendix C), demonstrate the response of the aircraft up to six seconds following blade loss. Actually, the pilot would react to the TR blade loss condition much earlier than six seconds and the response can be expected to be even less.

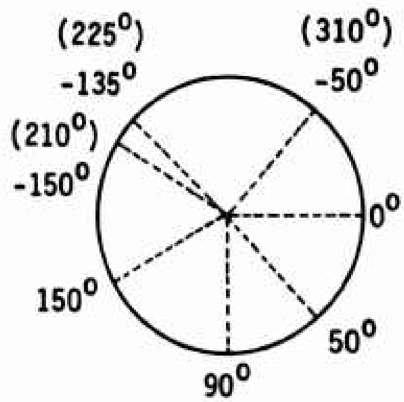
The aircraft responses vary as a function of the azimuth position where the initial blade is lost (ψ damage). This is caused by the unbalanced blade (No. 2) traveling through different percentages of tail rotor azimuth before reaching the jettison envelope for different azimuth locations of the ballistic damage to the initial blade (No. 0). The centrifugal imbalance imparts different net impulses on the helicopter for the different proportions of the revolution for which the imbalanced blade is carried before reaching the jettison envelope. Therefore, different aircraft responses follow the event as a function of damage but all of the responses are mild and acceptable for the full sweep of values of ψ damage. Table 4 presents data extracted from Figures C-1 through C-12 for: (a) the maximum roll (ϕ_b), pitch (ϕ_b), and yaw (ψ_b) angles achieved within 6 seconds after initiation of blade loss with SAS OFF; and (b) the roll, pitch, and yaw attitudes of the aircraft at 6 seconds following blade loss with SAS ON.

Table 4. Aircraft "Hands Off" Response Following Blade Losses

(a) A/C response within 6 seconds after severance (SAS OFF)

	Maximum Value Incurred Any Time During the Time History		
ψ Damage	ϕ_b Max	ϕ_b Max	ψ_b Max
0	10	40	28
50	14	38	28
90	22	33	28
150	31	28	28
-135	30	28	29
- 50	13	39	28

SAS OFF - A/C response is low frequency, oscillatory deviation from trim.



(b) A/C response at 6 seconds after severance (SAS ON)

	Value at 6 Sec Point in the Time History		
ψ Damage	ϕ_b 6 Sec	$\dot{\phi}_b$ 6 Sec	ψ_b 6 Sec
0	26	13	32
50	27	13	33
90	28	12	34
150	28	11	34
-135	28	11	34
- 50	27	14	33

SAS ON - A/C response is slow steady deviation from trim.

Trim condition = 16,450 Lb
(Level Flt)
FSCG = 360.2
S.L.S.

STEPPED TRANSITION TIME HISTORIES

During the three-bladed transitional period, the unbalanced centrifugal force imparts loads on the tail rotor of the helicopter. A series of ten time history cases with parameters varied in accordance with the table below were performed to examine the helicopter response to the unbalanced load during the transition from four to two blades. The simulation runs, Figures D-1 through D-10, are included in Appendix D to this report.

Table 5. Time History Case Parameters

Figure	GW(Lb)	FSCG(In)	V,Knots	Ω,%	ψ dmg	SAS	H_d Alt.,Ft
D-1	16,450	360.2	100 Kts	100	- 150	Off	S.L.S.
D-2	19,900	360.2	100 Kts	100	- 150	Off	S.L.S.
D-3	19,900	360.2	100 Kts	100	- 150	Off	10,000
D-4	19,900	347	100 Kts	100	- 150	Off	10,000
D-5	19,900	347	150 Kts	100	- 150	Off	10,000
D-6	19,900	360.2	150 Kts	100	- 150	(On)	10,000
D-7	19,900	360.2	Hover	100	- 150	Off	10,000
*D-8	19,900	347	Hover	100	- 150	Off	10,000
D-9	19,900	347	Hover	95	- 150	Off	10,000
D-10	19,900	347	Hover	100	- 150	Off	10,000

*No print out

The ten aircraft configurations studied show that there are insignificant changes in the tail rotor load and aircraft response parameters with variations in gross weight, center-of-gravity location, airspeed, density altitude, or on/off condition of SAS. Two additional runs were conducted (Figures D-11 and D-12, Appendix D) to ascertain the significance of varying the rotational point at which blade loss occurs. These two cases illustrate that the loads developed at the tail rotor during the centrifugal imbalance period essentially are not dependent on the tail rotor blade azimuth location at which the first blade is lost. The centrifugal load in the unbalanced rotor blade does vary, as can be expected, with change in tail rotor speed. From the data, it can be determined that the centrifugal loads for 95% N_R, 100% N_R, and 110% N_R are 24,000, 27,500, and 34,000 pounds, respectively.

It is anticipated that the loss of tail rotor blades is felt only as an impact load by the pilot since the transitional three-blade condition is of such short duration.

SIMULATOR INTERFACE

In order to qualitatively study pilot recovery from the tail rotor blade loss condition and retrimming of the helicopter, the basic GEN HEL program was coupled to a fixed base cockpit simulator (see Figure 30). Once the program is in a dynamic mode the program operator can select jettison of the two tail rotor blades. The program shifts from the four-bladed tail rotor solution to the two-bladed solution, imparting an impact-type response to the helicopter. Interpreting the blade loss condition from instrument readings and the visual display, the simulator pilot then proceeds to effect recovery of the helicopter from its response brought about by the forces from the blade loss and then trims the ship to the same or other flight conditions if necessary. The simulator pilot can proceed to a hover, if possible, and land, or conduct a run-on landing at low forward speed, if necessary.

The three-bladed severance transition portion of the solution is not used in the simulator study because real-time simulation requirements sample the tail rotor solution too infrequently to see a small enough change in tail rotor blade azimuth position. What transpires at the tail rotor during this very short imbalance period has negligible impact on helicopter handling qualities in a simulator study.

Nothing unusual or unexpected occurred during the piloted simulator portion of the handling qualities study. Even without external cues such as noise or impact motion, the simulator pilot was able to detect early the blade loss condition at the tail rotor. Yaw rates were not excessive for any of the severance cases studied using the simulator; qualitatively, these rates appeared to be between 10 deg/sec and 20 deg/sec. Typical reaction was to put in the left pedal to slow or stop the yaw rate. If the loading condition and forward speed of the original trim did not permit the helicopter to be retrimmed, the simulator pilot would reduce speed until the slip rate could be reduced. This speed range corresponded to the low power requirement range: between 60 and 100 knots. Many configurations were flown back to a trimmed hover with the two remaining tail rotor blades, from which a landing could be negotiated. The higher power configurations (high weight, high altitude) could only be flown down to 30 or 40 knots before running out of tail rotor range. These cases represented loading configurations of the aircraft that would have to be landed at forward speed.

Interior View

Frontal View

Figure 30. Cockpit Simulator

RESULTS

DYNAMIC STABILITY ANALYSIS

Based on a Floquet stability analysis, a two-bladed, cross-beam tail rotor system is stable up to the maximum speed investigated (150 knots).

The least stable blade/pylon modes are the blade lead-lag mode and the third fixed system mode, both showing a damping level of approximately one-half percent. The effect of forward speed is not significant except near 150 knots where two of the fixed system modes indicate a degradation in damping level.

The blade lead-lag damping is lowered slightly by the flexibility of the hub while the flapping mode shows very little change in stability.

Modal frequency is not influenced significantly by forward speed. The blade flapping mode and one of the fixed system modes have frequencies close to each other, particularly at 150 knots, resulting in modal damping degradation. However, modal frequencies do not coalesce and vibration problems from modes interacting are not likely to occur.

Vibration and load level on the two-bladed rotor increase with forward speed, and at the highest speed investigated (150 knots) the maximum 2/rev vibration levels result in a roll moment at the gearbox-pylon attachment of 20 percent of the ultimate value. This level is acceptable to maintain flight for the 30-minute minimum following ballistic damage that has been established for the UH-60A helicopter, and to conduct a landing.

Rotor hub loads generally increase with forward speed. All shear and moment loads except the steady yaw moment load increase rapidly at forward speeds greater than 120 knots as the rotor operates increasingly in the blade stall environment. The highest roll moment loading of the gearbox-pylon attachment occurs at the 150 knot maximum forward speed investigated.

Significant increases in hub and gearbox accelerations are observed for forward speeds greater than 120 knots and the 2/rev accelerations are much higher than the 4/rev accelerations.

STRUCTURAL ACCOMMODATION

The centrifugal load resulting from loss of a full tail rotor blade applied for 0.05 second (360° rotation at 100% N_R) will result in a torsion flexure of the tailcone of approximately 0.05 inch per inch, a level not considered excessive for a single load application.

PITCH LINK ACCOMMODATION

Severing of the tail rotor blade spar of the UH-60A must be accompanied by severing of the pitch horn fitting as well to achieve clean blade separation under all blade damage conditions.

PROTOTYPE SYSTEM PERFORMANCE

The prototype system successfully met the performance requirements in all tests performed, and compatibility with the blade jettison window for the UH-60A helicopter has been verified.

FLIGHT SIMULATION ANALYSIS

Helicopter trims gathered using the GEN HEL for the UH-60A with only two tail rotor blades indicated that the helicopter can be trimmed throughout the speed range for low altitudes even at high gross weights.

At higher altitudes, power requirements increase and there are conditions near hover and high speed that cannot be trimmed. At 100% N_R there is always a speed range (between 60 and 100 knots) where helicopter trim can be effected with the two-bladed tail rotor.

In general, the aft cg location is more critical for trimming the helicopter with two tail rotor blades due to the shorter moment arm provided about the cg.

The trim cases studied at 95% N_R and 110% N_R indicate that the helicopter can be trimmed in the 60-to-100-knot speed range except for low rotor speed with high altitude conditions where altitude reduction may be necessary to achieve trim due to inadequate rotor thrust at the reduced rotor speed and density altitude.

The time history studies conducted indicate that responses of the aircraft for both the SAS OFF and the SAS ON conditions are relatively mild, and should be acceptable to the pilot.

Although the aircraft responses vary with respect to the azimuthal position at which the blade is lost (onset of the centrifugal load), all of the responses are mild and acceptable for the sweep of the values of damage examined.

FLIGHT SIMULATOR WITH PILOT-IN-THE-LOOP

Yaw rates were not excessive for any of the severance cases studied using the flight simulator, ranging between 10 and 20 degrees per second.

Following left pedal input to slow or stop the yaw rate where loading and forward speed conditions did not permit retrimming with the two-bladed tail rotor, yaw rate could be stopped and out-of-trim slip angles could be reduced by reducing speed to the low power requirement range of 60 to 100 knots.

The higher power configurations (high weight, high altitude) indicated a 30-to-40-knot minimum speed limitation, requiring run-on type landings.

CONCLUSIONS

The prototype blade jettison system developed under this program has been verified by test to meet the rotational speed requirements of the UH-60A tail rotor and, when used in conjunction with blade severance assemblies, it will initiate tail rotor blade jettison within the blade jettison window established for that helicopter.

The dynamic stability analysis performed indicates that frequencies and amplitudes of the vibrations resulting from jettison of two opposing tail rotor blades will allow continued flight for a minimum of 30 minutes.

The simulation analysis performed to assess handling qualities indicates that the helicopter is controllable following the jettison of two opposing tail rotor blades and that the pilot work load to effect recovery is anticipated to be minimal.

An examination of the capability of the UH-60A helicopter to structurally accommodate the centrifugal force generated by the loss of an entire tail rotor blade for a period of 360° of rotor rotation indicates that re-design of the tail rotor drive shaft and the gearbox housing may be required.

For the UH-60A helicopter, the location of the pitch horn with respect to the point at which the blade spar is severed, necessitates that the pitch horn be severed simultaneously with the spar to prevent delayed blade jettison.

RECOMMENDATIONS

Based on the conclusions drawn from the results of the work performed under this contract, it is recommended that a follow-on ground test program be conducted that will demonstrate controlled jettison of tail rotor blades using a fully instrumented UH-60A tail cone and pylon and the prototype blade jettison system. The intent of the program would be to:

- Verify proper blade severance/jettison using full length tail rotor blades.
- Measure loads at the critical points to determine actual load levels achieved and to verify structural adequacy.
- Develop pyrotechnic devices, sized to sever UH-60A tail rotor blade spars and pitch horns.
- Prepare a failure modes and effects analysis for the blade jettison system.
- Instrument the tail rotor assembly and conduct lightning tests of the blades. Measure induced voltage levels, if present, at the logic units.

REFERENCES

1. USA Ballistic Research Laboratories Contract Report #197, December, 1974, "Rotor Balance Restoration Study".

2. Arcidiacono, P. J., Prediction of Rotor Instability at High Forward Speeds, Volume I, Steady Flight Differential Equations of Motion for a Flexible Helicopter Blade with Chordwise Mass Unbalance, Sikorsky Aircraft, USAAVLABS Technical Report 68-18A, U. S. Army Aviation Materiel Laboratories, Fort Eustis, Virginia, February, 1969, AD-685860.

3. Sikorsky Aircraft Report, SER-70545, Revision 2, May 1978, "UTTAS Aeroelastic Stability Analysis".

APPENDIX A

PROTOTYPE PERFORMANCE DATA

This appendix contains the photographically recorded data obtained from the tests conducted on the prototype blade jettison system to determine the capability of the system to meet the performance requirements of the UH-60A helicopter. The data was secured by means of Polaroid photographic equipment attached to the oscilloscope. Each of the photographs includes the oscilloscope sweep rate used to obtain the data. Each of the data is in accordance with the following key:

Trace #1: Proximity Sensor A - open condition

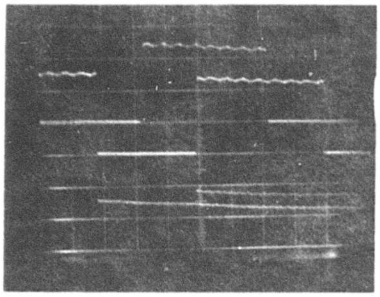
Trace #2: Proximity Sensor B - open condition

Trace #3: Proximity Sensor A - closed condition

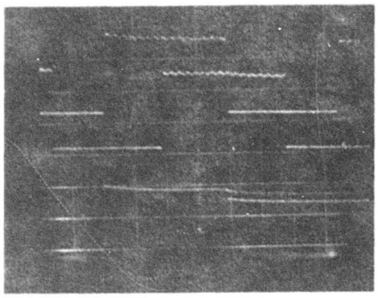
Trace #4: Proximity Sensor B - closed condition

Trace #5: EED Simulator - Blade #1 (left end is point of initiation)

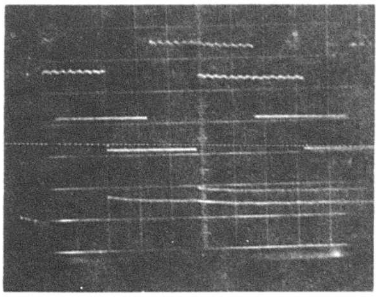
Trace #6: EED Simulator - Blade #3 (left end is point of initiation)



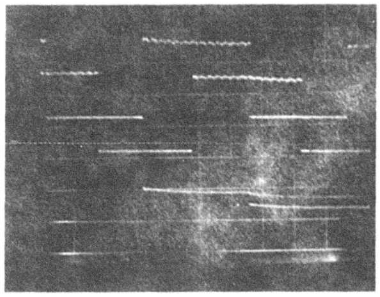
70% N_R (834 RPM) 10 ms Sweep



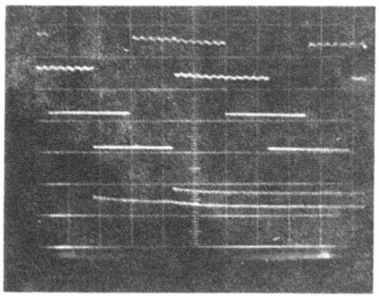
70% N_R (834 RPM) 10 ms Sweep



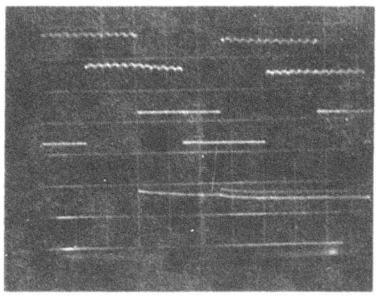
80% N_R (954 RPM) 10 ms Sweep



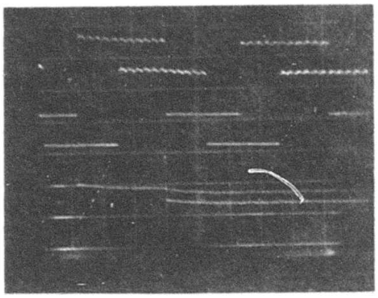
80% N_R (954 RPM) 10 ms Sweep



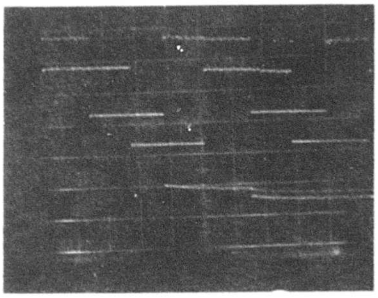
90% N_R (1073 RPM) 10 ms Sweep



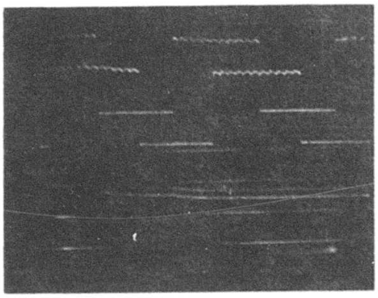
90% N_R (1073 RPM) 10 ms Sweep



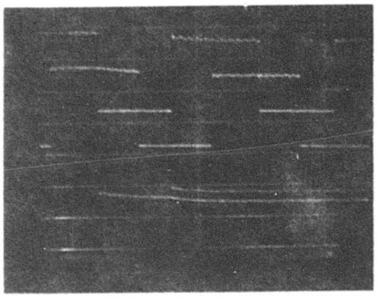
100% N_R (1192 RPM) 10 ms Sweep



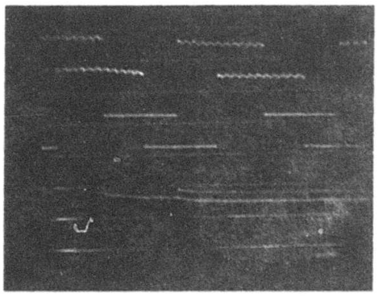
100% N_R (1192 RPM) 10 ms Sweep



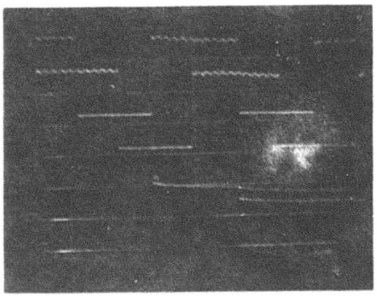
100% N_R (1192 RPM) 10 ms Sweep



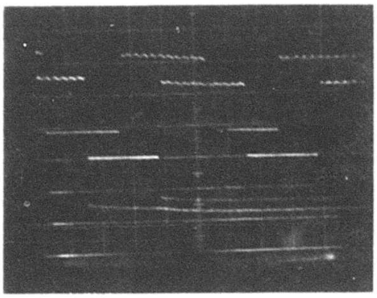
100% N_R (1192 RPM) 10 ms Sweep



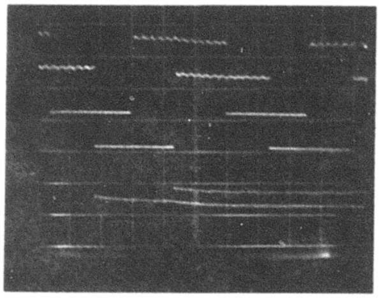
100% N_R (1192 RPM) 10 ms Sweep



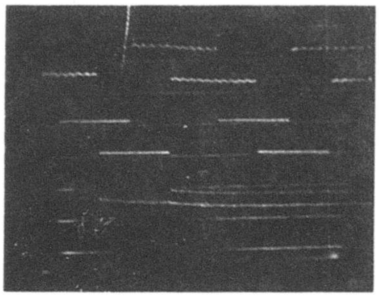
100% N_R (1192 RPM) 10 ms Sweep



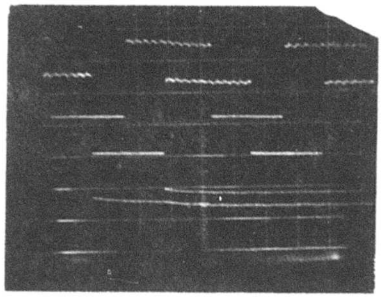
100% N_R (1192 RPM) 10 ms Sweep



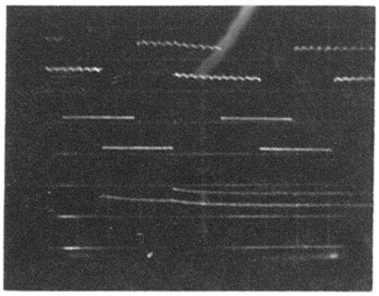
100% N_R (1192 RPM) 10 ms Sweep



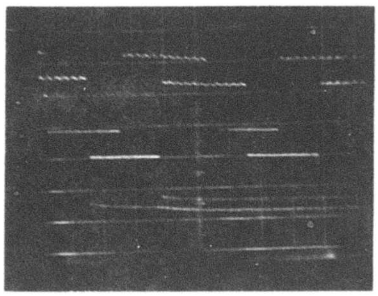
100% N_R (1192 RPM) 10 ms Sweep



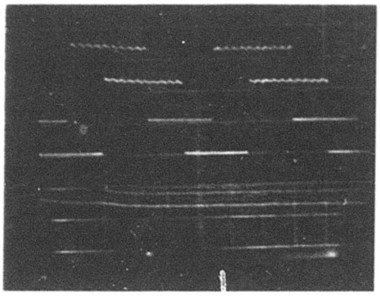
100% N_R (1192 RPM) 10 ms Sweep



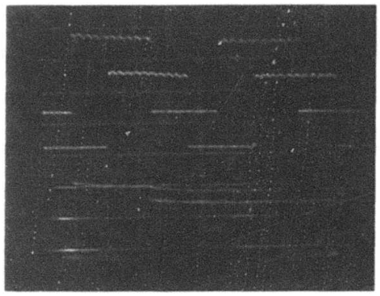
100% N_R (1192 RPM) 10 ms Sweep



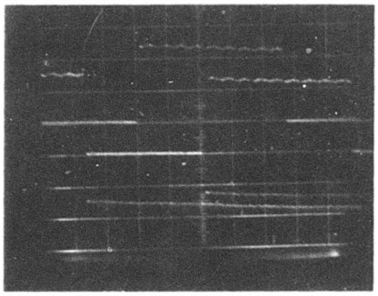
100% N_R (1192 RPM) 10 ms Sweep



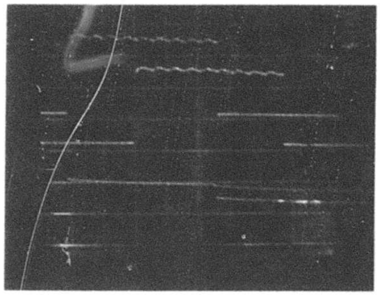
110% N_R (1311 RPM) 10 ms Sweep



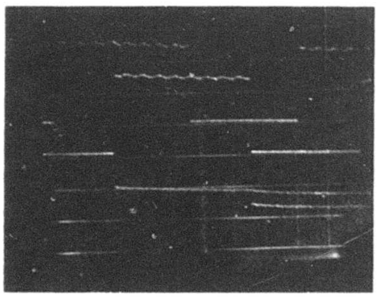
110% N_R (1311 RPM) 10 ms Sweep



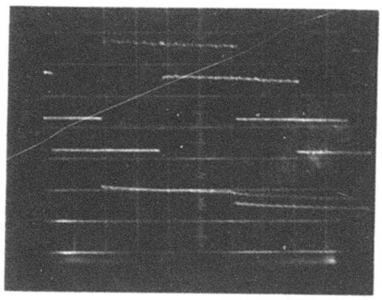
120% N_R (1430 RPM) 5 ms Sweep



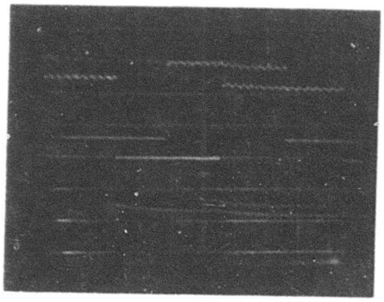
120% N_R (1430 RPM) 5 ms Sweep



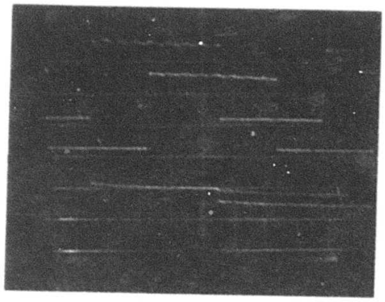
130% N_R (1550 RPM) 5 ms Sweep



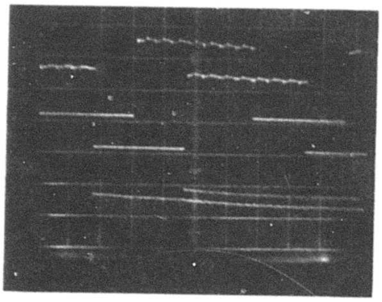
130% N_R (1550 RPM) 5 ms Sweep



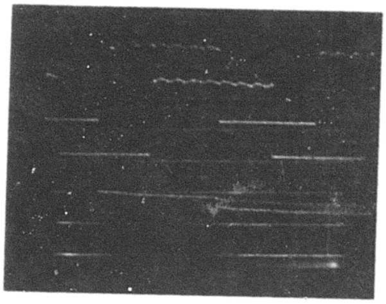
140% N_R (1669 RPM) 5 ms Sweep



140% N_R (1669 RPM) 5 ms Sweep



150% N_R (1788 RPM) 5 ms Sweep



150% N_R (1788 RPM) 5 ms Sweep

APPENDIX B

TWO-AND FOUR-BLADED TRIMS

The computer runs provided in this appendix are the two-and four-bladed trim data conducted to assess the ability of the UH-60A helicopter to achieve trim under varying density altitude, gross weight, and center-of-gravity conditions. Definitions of the symbols used are included.

SYMBOLS

WEIGHT	AIRCRAFT GROSS WEIGHT
IX	INERTIA ABOUT BODY X-AXIS LESS ROTOR, $FT\text{-}LB\text{-}SEC^2$
IY	INERTIA ABOUT BODY Y-AXIS LESS ROTOR, $FT\text{-}LB\text{-}SEC^2$
IZ	INERTIA ABOUT BODY Z-AXIS LESS ROTOR, $FT\text{-}LB\text{-}SEC^2$
OMEGMR	MAIN ROTOR ROTATIONAL SPEED, RAD/SEC
OMEGTR	TAIL ROTOR ROTATIONAL SPEED, RAD/SEC
KFR	ROTOR FILTER CONSTANT
FSHT	FUSELAGE STATION HORIZONTAL TAIL, IN.
LATSTK	LATERAL STICK POSITION, INTERMEDIATE CALCULATION, DEG
LNGSTK	LONGITUDINAL STICK POSITION, INTERMEDIATE CALCULATION, DEG
COLSTK	COLLECTIVE STICK POSITION, INTERMEDIATE CALCULATION, DEG
PEDAL	DIRECTIONAL CONTROL PEDAL POSITION, INTERMEDIATE CALCULATION, DEG
XAIN	LATERAL STICK POSITION, IN.
XBACTP	LONGITUDINAL STICK POSITION WITH BIAS ACTUATOR, %
VXB	BODY AXIS TRANSLATIONAL VELOCITIES X-AXIS FT/SEC
VYB	BODY AXIS TRANSLATIONAL VELOCITIES Y-AXIS FT/SEC
VZB	BODY AXIS TRANSLATIONAL VELOCITIES Z-AXIS FT/SEC
P	ROLL RATE, RAD/SEC
Q	PITCH RATE, RAD/SEC
R	YAW RATE, RAD/SEC
ALFWF	FUSELAGE ANGLE OF ATTACK, DEG
CHITPP	ROTOR DOWN WASH ANGLE, DEG

EKTR	DOWNWASH FACTOR OF TAIL ROTOR ON VERTICAL TAIL	
QWF	DYNAMIC PRESSURE AT FUSELAGE, LB/FT^2	
MUXS	NORMALIZED SHAFT AXIS TRANSLATIONAL VELOCITIES AT THE HUB, NORMALIZED BY Ω MR TIP SPEED	
MUYS		
MUZS		
LAMBMR	MAIN ROTOR INFLOW RATIO	
DWSHMR	MAIN ROTOR INDUCED DOWN WASH	
XMR	ROTOR BODY AXIS FORCES, LB	
YMR		
ZMR		
LMR	ROTOR BODY AXIS MOMENTS ABOUT THE C.G.	ROLL MOMENT, FT-LB
MMR		PITCHING, MOMENT FT-LB
NMR		YAWING MOMENT, FT-LB
XWF	FUSELAGE BODY AXIS FORCES, LB	
YWF		
ZWF		
LWF	FUSELAGE BODY AXIS MOMENTS ABOUT THE C.G.	ROLL, FT-LB
MWF		PITCH, FT-LB
NWF		YAW, FT-LB
XHT	HORIZONTAL TAIL BODY AXIS FORCES, LB	
YHT		
ZHT		
FSCG	FUSELAGE STATION C.G., IN.	
WLCG	WATER LINE STATION C.G., IN.	
RHO	AIR DENSITY, $SLUGS/FT^3$	
TIME	TIME INTERVAL BETWEEN ROTOR CALCULATIONS, SEC	

NBSS	NUMBER OF BLADES
NSSS	NUMBER OF BLADE SEGMENTS
PASCNT	NUMBER OF ROTOR CALCULATIONS FOR TRIM
SHT	HORIZONTAL TAIL AREA, FT^2
A1S	LATERAL CYCLIC PITCH, DEG
B1S	LONGITUDINAL CYCLIC PITCH, DEG
THETAØ	MAIN ROTOR COLLECTIVE PITCH AT CUFF, DEG
THETTR	RAIL ROTOR IMPRESSED COLLECTIVE PITCH @ CENTER OF ROTATION, DEG
XBIN	LONGITUDINAL STICK POSITION, WITHOUT BIAS ACTUATOR, IN.
XBACTI	LONGITUDINAL STICK POSITION, WITH BIAS ACTUATOR, IN.
THETAB	AIRCRAFT PITCH ATTITUDE, DEG
PHIB	AIRCRAFT ROLL ATTITUDE, DEG
BETAWF	AIRCRAFT SIDESLIP ANGLE, DEG
GAMC	CLIMB ANGLE, DEG
OMGRAT	RATIO OF ACTUAL TO TRIMMED ROTOR SPEED
PSIDOT	EULER ANGLE YAW RATE, DEG/SEC
EKTX	MAIN ROTOR DOWNWASH FACTOR AT HORIZONTAL TAIL IN BODY X-AXIS
EKTZ	MAIN ROTOR DOWNWASH FACTOR AT HORIZONTAL TAIL IN BODY Z-AXIS
EPSWT	FUSELAGE DOWNWASH ANGLE AT HORIZONTAL TAIL, DEG
KQHT	SQUARE ROOT OF DYNAMIC PRESSURE RATIO AT HORIZONTAL TAIL
CTSIG	MAIN ROTOR THRUST COEFFICIENT SOLIDITY RATIO
CHSIG	MAIN ROTOR H-FORCE COEFFICIENT SOLIDITY RATIO
CQHSIG	MAIN ROTOR TORQUE COEFFICIENT SOLIDITY RATIO
NZ	LOAD FACTOR ALONG THE AIRCRAFT Z-AXIS

VC	RATE OF CLIMB, FT/MIN	
HBAR	MAIN ROTOR H-FORCE, LB	
JBAR	MAIN ROTOR SIDEFORCE, LB	
TBAR	MAIN ROTOR THRUST, LB	SHAFT AXIS
LBARH	MAIN ROTOR ROLL MOMENT, FT-LB	
MBARH	MAIN ROTOR PITCH MOMENT, FT-LB	
QBAR	MAIN ROTOR TORQUE MOMENT, FT-LB	
XT	EMPENNAGE X-FORCE (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, LB	
YT	EMPENNAGE Y-FORCE (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, LB	
ZT	EMPENNAGE Z-FORCE (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, LB	
LT	EMPENNAGE ROLL MOMENT (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, FT-LB	
MT	EMPENNAGE PITCH MOMENT (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, FT-LB	
NT	EMPENNAGE YAW MOMENT (VERTICAL + HORIZONTAL TAIL) IN BODY AXIS, FT-LB	
XVT	VERTICAL TAIL X-FORCE IN BODY AXIS, LB	
YVT	VERTICAL TAIL Y-FORCE IN BODY AXIS, LB	
ZVT	VERTICAL TAIL Z-FORCE IN BODY AXIS, LB	
V	AIRSPEED, KTS	
DELS	SWASH PLATE ROTATION, DEG	
VSOUND	SPEED OF SOUND, FT/SEC	
DEL3MR	MAIN ROTOR DELTA 3 ANGLE, DEG	
TWSTMR	MAIN ROTOR TWIST, DEG	
TWSTTR	TAIL ROTOR TWIST, DEG	
WLHT	WATER LINE HORIZONTAL TAIL, IN.	

SVT	VERTICAL TAIL AREA, FT^2
IHT	HORIZONTAL TAIL INCIDENCE, DEG
IS	SHAFT ANGLE INCIDENCE, POSITIVE FWD, DEG
TH75MR	MAIN ROTOR COLLECTIVE PITCH AT .75 RADIUS, DEG
TH75TR	TAIL ROTOR COLLECTIVE PITCH AT .75 RADIUS, DEG
XCIN	COLLECTIVE STICK POSITION, IN.
RSTR	YAW ACCELERATION AT TAIL ROTOR, SHAFT AXIS, RAD/SEC^2
AAØF AA1F BB1F	FOURIER SERIES COEFFICIENT FOR MAIN ROTOR FLAPPING, NEGATIVE SERIES, DEG
AAØL AA1L BB1L	FOURIER SERIES COEFFICIENT FOR MAIN ROTOR LAGGING, NEGATIVE SERIES, DEG
EKWFX	MAIN ROTOR DOWNWASH FACTOR AT FUSELAGE, BODY X-AXIS
EKWFZ	MAIN ROTOR DOWNWASH FACTOR AT FUSELAGE, BODY Z-AXIS
SIGWT	FUSELAGE SIDEWASH ANGLE AT VERTICAL TAIL, DEG
KQVT	SQUARE ROOT OF DYNAMIC PRESSURE RATIO AT VERTICAL TAIL, DEG
TTR	TAIL ROTOR THRUST, LB
HPMR	HORSE POWER MAIN ROTOR
KTRBLK	TAIL ROTOR BLOCKAGE FACTOR
VXBDOT	BODY AXIS ACCELERATION AT C.G. IN X-AXIS, FT/SEC^2
VYBDOT	BODY AXIS ACCELERATION AT C.G. IN Y-AXIS, FT/SEC^2
VZBDOT	BODY AXIS ACCELERATION AT C.G. IN Z-AXIS, FT/SEC^2
PDOT	AIRCRAFT ROLL ACCELERATION, RAD/SEC^2
QDOT	AIRCRAFT PITCH ACCELERATION, RAD/SEC^2
RDOT	AIRCRAFT YAW ACCELERATION, RAD/SEC^2

XTR	TAIL ROTOR FORCE IN X-AXIS, LB
YTR	TAIL ROTOR FORCE IN Y-AXIS, LB
ZTR	TAIL ROTOR FORCE IN Z-AXIS, LB
LTR	TAIL ROTOR ROLL MOMENT ABOUT BODY X-AXIS, FT-LB
MTR	TAIL ROTOR PITCH MOMENT ABOUT BODY Y-AXIS, FT-LB
NTR	TAIL ROTOR YAW MOMENT ABOUT BODY Z-AXIS, FT-LB
ALFHTT	LOCAL ANGLE OF ATTACK OF HORIZONTAL TAIL
ALFVTT	LOCAL ANGLE OF ATTACK OF VERTICAL TAIL
AABB1F	$\sqrt{(AA1F)^2 + (BB1F)^2}$
PSITR2	AZIMUTH POSITION OF TR BLADE NUMBER 2, DEG
VXSTR.	LINEAR ACCELERATION AT TAIL ROTOR IN TAIL ROTOR SHAFT X-AXIS, FT/SEC^2
VYSTR.	LINEAR ACCELERATION AT TAIL ROTOR IN TAIL ROTOR SHAFT Y-AXIS, FT/SEC^2
VZSTR.	LINEAR ACCELERATION AT TAIL ROTOR IN TAIL ROTOR SHAFT Z-AXIS, FT/SEC^2
PSTR.	AIRCRAFT ROLL ANGLULAR ACCELERATIONS AT TAIL ROTOR IN SHAFT AXIS
WLVT	WATERLINE VERTICAL TAIL
FSVT	FUSELAGE STATION VERTICAL TAIL
XA	LATERAL STICK POSITION, %
XB	LONGITUDINAL STICK POSITION, %
XC	COLLECTIVE STICK POSITION, %
XP	PEDAL POSITION, %
XPIN	PEDAL POSITION IN INCHES
PSTR	AIRCRAFT ROLL ANGULAR ACCELERATIONS AT TAIL ROTOR IN TR SHAFT AXIS, RAD/SEC^2

QSTR	AIRCRAFT PITCH ANGLULAR ACCELERATIONS AT TAIL ROTOR IN TR SHAFT AXIS, RAD/SEC^2
RSTR	AIRCRAFT YAW ANGULAR ACCELERATIONS AT TAIL ROTOR IN TR SHAFT AXIS, RAD/SEC^2
TITR	TAIL ROTOR INERTIA THRUST (SHAFT AXIS), LB
HITR	TAIL ROTOR INERTIA H-FORCE (SHAFT AXIS), LB
JITR	TAIL ROTOR INERTIA J-FORCE (SHAFT AXIS), LB
MHITR	TAIL ROTOR INERTIA HUB PITCHING MOMENT (MOMENT ABOUT SHAFT Y AXIS), FT-LB
LHITR	TAIL ROTOR INERTIA HUB ROLLING MOMENT (MOMENT ABOUT SHAFT X AXIS), FT-LB
QHITR	TAIL ROTOR INERTIA HUB YAW MOMENT (MOMENT ABOUT SHAFT Z AXIS), FT-LB
XITR	TR INERTIA X-FORCE (BODY AXIS), LB
YITR	TR INERTIA Y-FORCE (BODY AXIS), LB
ZITR	TR INERTIA Z-FORCE (BODY AXIS), LB
LITR	TR INERTIA ROLL MOMENT (BODY AXIS), FT-LB
MITR	TR INERTIA PITCH MOMENT (BODY AXIS), FT-LB
NITR	TR INERTIA YAW MOMENT (BODY AXIS), FT-LB
AXP	LONGITUDINAL ACCELERATION AT PILOT'S LOCATION, FT/SEC^2
AYP	LATERAL ACCELERATION AT PILOT'S LOCATION, FT/SEC^2
AZP	VERTICAL ACCELERATION AT PILOT'S LOCATION, FT/SEC^2
VXP	LONG. VEL AT PILOT'S LOCATION (ALONG BODY X-AXIS), FT/SEC
VYP	LATERAL VELOCITIE AT PILOT'S LOCATION (ALONG BODY Y-AXIS), FT/SEC
VZP	VERTICAL VELOCITY AT PILOT'S LOCATION (ALONG BODY Z-AXIS), FT/SEC
RSTR.	YAW ACCELERATION AT TAIL ROTOR, SHAFT AXIS, RAD/SEC^2
PSIDMG	AZIMUTH SELECTED FOR DAMAGE OCCURANCE, DEG

BTR	NUMBER OF TAIL ROTOR BLADES
MADD	AUXILIARY PITCHING MOMENT (BODY AXIS SYSTEM), FT-LB
XADD	AUXILIARY X-FORCE (BODY AXIS SYSTEM), LB
YADD	AUXILIARY Y-FORCE (BODY AXIS SYSTEM), LB
ZADD	AUXILIARY Z-FORCE (BODY AXIS SYSTEM), LB
NADD	AUXILIARY YAWING MOMENT (BODY AXIS SYSTEM), FT-LB
LADD	AUXILIARY ROLLING MOMENT (BODY AXIS SYSTEM), FT-LB

UTTAS(S76)   1-21-77   16-SEP-77   RUN 22.

WEIGHT	19900.0	FSCG	360.20000	V	40.0	PSIIR2	0.0
IX	5265.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	36224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019449	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASLNT	692.0	WLMT	234.0	FSVT	695.0
FSMT	722.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-2.1106300	A1S	-3.0734614	IMT	31.582801	XA	36.888562
LNGSTK	5.9679498	B1S	4.4315940	IS	-3.0	XB	28.911837
COLSTK	19.827877	THETA0	19.827877	TH75MR	9.7478772	XC	58.424233
PEDAL	20.617620	THETTR	31.835081	TH75TR	18.335081	XP	24.446582
XAIN	3.6888562	XBIN	2.8911837	XCIN	5.8424233	XPIN	1.3200811
XBACTP	35.518725	XBALTI	3.5518725	RSTR.	0.0	PSTR	0.0
VXB	67.389674	THETAB	4.4918113	AA0F	4.3234276	QSTR	0.0
VYB	0.0	PHIB	-1.5037698	AA1F	-2.2735399	RSTR	0.0
VZB	5.2942291	BETAWF	0.0	BB1F	-0.33871902	TITR	0.0
P	0.0	GAML	0.0	AA0L	-6.5007754	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.28154563	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.84644779E-1	MHITR	0.0
ALFWF	-18.818198	EKTX	0.96973353	EKWFX	0.69240182	LHITR	0.0
CHITPP	62.492440	EKTZ	2.0277043	EKWFZ	1.0358151	OHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.4526100	KUHT	0.93516002	KQVT	0.84852813	YITR	0.0
MUXS	0.93205697E-1	CTSIG	0.11161442	LTOT	-31.028381	ZITR	0.0
MUYS	0.0	CMSIG	-0.36497394E-2	DTOT	30.011919	LITR	0.0
MUZS	0.24274421E-2	COMSIG	0.94369289E-6	TTR	1161.9499	MITR	0.0
LAMBMR	-0.43956306E-1	NZ	0.99655093	HPMR	1707.3339	NITR	0.0
DWSHMR	0.46357748E-1	VC	0.13353824	KTRBLK	1.0	AXP	2.5297583
XMR	1619.7477	HBAR	-623.21614	VXBDOT	0.10844655E-1	AYP	0.91320486
YMR	-544.39954	JBAR	544.39954	VYBDOT	0.27048060E-1	AZP	-32.061928
ZMR	-18990.655	TBAR	19858.871	VZBDOT	-0.26583880E-2	VXP	67.389674
LMR	-6651.1629	LBARH	-1585.3965	PDOT	0.15501459E-2	VYP	0.0
MMR	15624.022	MBARH	-6669.2918	QDOT	0.18375086E-3	VZP	5.2942291
NMR	33721.350	QBAR	34753.262	RDOT	0.12604034E-2	RSTR.	0.0
XWF	-150.63985	XT	32.240909	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-5.5832411	YTR	1091.9569	BTR	2.0
ZWF	308.48264	ZT	65.449772	ZTR	-397.44061	MADD	0.0
LWF	0.0	LT	-12.422711	LTR	6670.4382	XADD	0.0
MWF	-5195.0140	MT	1892.6683	MTR	-12314.034	YADD	0.0
NWF	0.0	NT	155.77242	NTR	-33832.466	ZADD	0.0
XHT	33.636083	XVT	-1.3959737	ALFHTT	-1.9617445	NADD	0.0
YHT	0.0	YVT	-5.5832411	ALFVTT	0.0	LADD	0.0
ZHT	64.524237	ZVT	0.92553544	AABB1F	2.2986331		

UTTAS(376)   1-21-77   30-AUG-77   RUN 51.

WEIGHT	19900.0	PSCG	347.0	V	40.0	PSITR2	0.0
IX	6268.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBBS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSBS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	19.0	PASCNT	2070.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	1.7713119	A1S	1.0214275	IMT	33.202421	XA	61.070700
LNGSTK	4.2616266	B1S	-0.33549594	IS	-3.0	XB	34.941240
COLSTK	17.760431	THETA0	17.760431	TH75MR	7.6004314	XC	45.502697
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	6.1070699	XBIN	3.4941240	XCIN	4.5502697	XPIN	0.0
XBACTP	39.947089	XBACTI	3.9947089	RSTR.	0.0	PSTR	0.0
VXB	67.594985	THETAB	0.27052983	AA0F	3.0938599	QSTR	0.0
VYB	103.49543	PHIB	5.6406344	AA1F	4.5023838	RSTR	0.0
VZB	0.32058288	BETAWF	50.249247	BB1F	-0.93397378	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.2546784	HITR	0.0
Q	0.0	OMBRAT	1.0	AA1L	-0.95068230E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.45149101	MHITR	0.0
ALFWF	-12.736494	EKTX	1.0697143	EKWFX	0.85892852	LHITR	0.0
CHITPP	76.266230	EKTZ	2.1495279	EKWFZ	1.0137337	QHITR	0.0
EKTR	0.0	EPSWT	1.7999999	SIGWT	2.0	XITR	0.0
QWF	15.054055	KQMT	0.87177979	KQVT	1.0	YITR	0.0
MUXS	0.93130024E-1	CTSIG	0.10600697	LTOT	10.432414	ZITR	0.0
MUYS	0.14276204	CHSIG	0.66045236E-2	DTOT	64.884462	LITR	0.0
MUZS	-0.44271310E-2	CQMSIG	0.84992933E-6	TTR	862.61370	MITR	0.0
LAMBMR	-0.30692736E-1	NZ	0.99498382	HPMH	943.09963	NITR	0.0
DWSMMR	0.26265604E-1	VC	-611.00085	KTRBLK	1.0	AXP	0.15806934
XMR	-170.09275	HBAR	1127.7642	VXBDOT	0.12903807E-2	AYP	-3.1863950
YMR	-822.90874	JBAR	822.90874	VYBDOT	-0.25305491E-1	AZP	-32.012104
ZMR	-10147.010	TBAR	10115.022	VZBDOT	0.23370113E-2	VXP	67.594985
LMR	-9593.4003	LBARH	-3602.5020	PDOT	0.16200020E-2	VYP	103.49543
MMR	21402.933	MBARH	11195.409	QDOT	-0.47363997E-4	VZP	0.32058288
NMR	10561.000	QBAR	19197.069	RDOT	-0.73306749E-3	RSTR.	0.0
XWF	166.06534	XT	105.57302	XTR	0.0	PSIDMG	0.0
YWF	-1510.6000	YT	-370.75642	YTR	810.65200	BTR	2.0
ZWF	-207.10140	ZT	-342.28503	ZTR	-295.05377	MADD	0.0
LWF	5435.7302	LT	-782.54052	LTR	4952.0303	XADD	0.0
MWF	-1267.4710	MT	-10671.123	MTR	-9466.3083	YADD	0.0
NWF	-3342.9770	NT	10757.006	NTR	-26008.410	ZADD	0.0
XMT	-126.05614	XVT	232.42997	ALFMTT	4.0861351	NADD	0.0
YMT	-13.043056	YVT	-357.71256	ALFVTT	56.229334	LADD	0.0
ZMT	-217.04994	ZVT	-125.23509	AABB1F	4.5982351		

UTTAB(876)   1-21-77   30-AUG-77   RUN 52.

WEIGHT	19900.0	FSCG	347.0	V	150.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	2723.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.11035919	A1S	-1.2041795	IMT	9.7067363	XA	49.310255
LNGSTK	10.001777	B1S	6.5902609	IS	-3.0	XB	14.650829
COLSTK	21.076314	THETA0	21.076314	TH75MR	11.796314	XC	71.220965
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.9310255	XBIN	1.4650829	XCIN	7.1220965	XPIN	0.0
XBACTP	9.3971197	XBACTI	0.93971197	RSTH.	0.0	PSTR	0.0
VXB	252.22549	THETAB	-5.7525328	AA0P	3.8410218	QSTR	0.0
VYB	81.445359	PHIB	13.503862	AA1F	3.2410725	RSTR	0.0
VZB	-25.409080	BETAWF	17.204977	BB1F	-0.91955432	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.3060046	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.62200900E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.27204816	MMITR	0.0
ALFWF	-7.5544977	EKTX	1.0520916	EKWFX	0.93211034	LMITR	0.0
CHITPP	82.470027	EKTZ	1.9704972	EKWFZ	1.0075299	QMITR	0.0
EKTR	0.0	EPSWT	0.93229063	SIGWT	1.8440995	XITR	0.0
QWF	66.309572	KQMT	0.87177979	KUVT	0.76271040	YITR	0.0
MUXS	0.34550466	CTSIG	0.10812291	LTOT	0.11778092	ZITR	0.0
MUYS	0.11234670	CHSIG	0.93353009E-2	DTOT	36.555397	LITR	0.0
MUZS	-0.53200260E-1	CQMSIG	0.83839612E-6	TTR	1308.5541	MITR	0.0
LAMBMR	-0.65723302E-1	NZ	0.96000025	HPMR	1989.0840	NITR	0.0
DWSMMR	0.12515041E-1	VC	-1177.3059	KTRBLK	1.0	AXP	-3.4036341
XMR	-625.52095	MBAR	1594.0618	VXBDOT	0.15257655E-2	AYP	-9.1274428
YMR	-1229.4009	JBAR	1229.4009	VYBDOT	-0.11885760E-1	AZP	-31.168047
ZMR	-10519.361	TBAR	10462.673	VZBDOT	-0.20837426E-1	VXP	252.22549
LMR	-15104.219	LBARM	-5715.4305	PDOT	-0.53139168E-2	VYP	81.445359
MMR	21526.101	MBARM	8460.8621	QDOT	-0.52517034E-2	VZP	-25.409080
NMR	39511.119	QBAR	40400.387	RDOT	0.45517610	RSTR.	0.0
XWF	-1510.9294	XT	224.04672	XTR	0.0	PSIUMG	0.0
YWF	-3275.4472	YT	-1100.9315	YTR	1229.7300	BTR	2.0
ZWF	192.38000	ZT	295.05007	ZTR	-447.50601	MADD	0.0
LWF	9140.1060	LT	-2555.4071	LTR	7512.0529	XADD	0.0
MWF	-15732.630	MT	8340.1054	MTR	-14360.051	YADD	0.0
NWF	-10481.523	NT	33834.972	NTR	-39453.039	ZADD	0.0
XMT	35.001254	XVT	160.24547	ALFMTT	-1.9832661	NADD	0.0
YMT	-12.346378	YVT	-1154.1051	ALFVTT	20.040100	LADD	0.0
ZMT	334.00026	ZVT	-30.949309	AABW1F	3.3689956		

UTTAS(876)   1-21-77   30-AUG-77   RUN 53.

WEIGHT	19900.0	PSCG	347.0	V	40.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELB	-5.0	VXBTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYBTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZBTR.	0.0
OMEGMR	27.019999	NBBS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSBS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	650.0	WLHT	234.0	PSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.6519814	A1S	-2.0142400	IHT	31.832472	XA	39.675616
LNGSTK	2.1556702	B1S	0.75175139	IS	-3.0	XB	42.382790
COLSTK	19.023151	THETA0	19.023151	TH75MR	9.7431513	XC	50.394696
PEDAL	20.130203	THETTR	31.349985	TH75TR	17.049985	XP	25.775660
XAIN	3.9675616	XBIN	4.2382789	XCIN	5.0394696	XPIN	1.3918494
XBACTP	47.591939	XBACTI	4.7591938	RBTR.	0.0	PSTR	0.0
VXB	67.585355	THETAB	0.81355204	AABF	4.3466358	QSTR	0.0
VYB	0.0	PHIB	-1.1068198	AA1F	1.7007909	RSTR	0.0
VZB	0.95975095	BETAWF	0.0	BB1F	-0.27385183E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.1445566	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.15283855	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.20228731	MHITR	0.0
ALFWF	-20.028439	EKTX	0.85664848	EKWFX	0.71085732	LMITR	0.0
CHITPP	63.050564	EKTZ	2.1418453	EKWFZ	1.0322988	QMITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	0.2257552	KQHT	0.97402531	KQVT	0.84852813	YITR	0.0
MUXS	0.93162324E-1	CTSIG	0.11247063	LTOT	-35.096696	ZITR	0.0
MUYS	0.0	CHSIG	0.41810714E-2	DTOT	31.713559	LITR	0.0
MUZS	-0.35578567E-2	COMSIG	0.94075064E-6	TTR	1121.0200	MITR	0.0
LAMBMR	-0.49222097E-1	NZ	0.99934097	HPMR	1673.4533	NITR	0.0
DWSHMR	0.45665040E-1	VC	0.10193078E-1	KTRBLK	1.0	AXP	0.42153644
XMR	292.17495	HBAR	713.94445	VXBDOT	-0.35117227E-1	AYP	0.69464945
YMR	-634.94843	JBAR	634.94843	VYBDOT	0.29800164E-1	AZP	-32.152862
ZMR	-19214.626	TBAR	19205.073	VZBDOT	0.40686394E-2	VXP	67.585355
LMR	-6425.2177	LBARH	-854.00764	PDOT	-0.23157150E-3	VYP	0.0
MMR	12799.661	MBARH	4861.3073	QDOT	0.87618698E-5	VZP	0.95975095
NMR	33649.663	QBAR	34063.633	RDOT	0.28996624E-3	RSTR.	0.0
XWF	-146.10739	XT	104.10017	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-5.5772977	YTR	1053.5001	BTR	2.0
ZWF	360.59285	ZT	162.05687	ZTR	-383.44343	MADD	0.0
LWF	0.0	LT	-12.409487	LTR	6435.5169	XADD	0.0
MWF	-5380.4171	MT	4883.2636	MTR	-12302.143	YADD	0.0
NWF	0.0	NT	161.74163	NTR	-33799.795	ZADD	0.0
XHT	105.52013	XVT	-1.3399675	ALFHTT	-4.9514746	NADD	0.0
YHT	0.0	YVT	-5.5772977	ALFVTT	0.0	LADD	0.0
ZHT	161.05503	ZVT	1.0018405	AABB1F	1.7010114		

UTTAS(S76)   1-21-77   30-AUG-77   RUN 5A.

WEIGHT	19900.0	FSCG	347.0	V	40.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NBSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	800.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.6500535	A1S	-2.6134893	IMT	31.047129	XA	39.687165
LNGSTK	3.2922040	B1S	0.74925965	IS	-3.0	XB	38.366484
COLSTK	19.033745	THETAB	19.033745	TH75MR	9.7537459	XC	58.408913
PEDAL	24.230567	THETTR	35.455062	TH75TR	21.955062	XP	14.430672
XAIN	3.9687165	XBIN	3.8366484	XCIN	5.8408912	XPIN	0.77923606
XBACTP	43.548776	XBACTI	4.3548776	RSTR.	0.0	PSTR	0.0
VXB	67.586627	THETAB	0.74287536	AA0F	4.3482087	QSTR	0.0
VYB	0.0	PHIB	-1.2244408	AA1F	1.7055691	RSTR	0.0
VZB	0.87637338	BETAWF	0.0	BB1F	-0.28420647E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.1590849	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.15280949	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.28259296	MHITR	0.0
ALFWF	-20.077173	EKTX	0.85535009	EKWFX	0.70944086	LMITR	0.0
CHITPP	63.803759	EKTZ	2.1408577	EKWFZ	1.0323924	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	0.2265385	KQMT	0.97507524	KQVT	0.84852813	YITR	0.0
MUXS	0.93158058E-1	CTSIG	0.11249199	LTOT	-35.282390	ZITR	0.0
MUYS	0.0	CMSIG	0.41805576E-2	DTOT	31.771064	LITR	0.0
MUZS	-0.36719940E-2	CQMSIG	0.94918196E-6	TTR	1123.3193	MITR	0.0
LAMBMR	-0.49327081E-1	NZ	0.99945942	HPMH	1677.3458	NITR	0.0
DWSMMR	0.45655086E-1	VC	0.17139762E-1	KTRBLK	0.79599999	AXP	0.42335179
XMR	292.45341	HBAR	713.85673	VXBDOT	0.64518299E-2	AYP	0.69634766
YMR	-635.85721	JBAR	635.85721	VYBDOT	0.18832393E-1	AZP	-32.156622
ZMR	-19210.263	TBAR	19208.721	VZBDOT	0.54072947E-3	VXP	67.586627
LMR	-6437.0059	LBARM	-856.26062	PDOT	0.82685586E-4	VYP	0.0
MMR	12012.855	MBARM	4074.4108	QDOT	-0.13632999E-4	VZP	0.87637338
NMR	33728.205	QBAR	34142.866	RDOT	0.55619627E-3	RSTR.	0.0
XWF	-145.07070	XT	104.70379	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-5.5773981	YTR	1055.0533	BTR	2.0
ZWF	362.19370	ZT	162.61581	ZTR	-384.22714	MADD	0.0
LWF	0.0	LT	-12.409711	LTR	6448.6702	XADD	0.0
MWF	-5386.3942	MT	4980.2589	MTR	-12327.287	YADD	0.0
NWF	0.0	NT	101.74454	NTR	-33860.877	ZADD	0.0
XMT	106.04320	XVT	-1.3394118	ALFWTT	-4.9698531	NADD	0.0
YMT	0.0	YVT	-5.5773981	ALFVTT	0.0	LADD	0.0
ZMT	161.61318	ZVT	1.0026289	AABW1F	1.7050060		

UTTAS(376) 1-21-77 30-AUG-77 RUN 55.

WEIGHT	19900.0	FSCG	347.0	V	1.0E-2	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBBS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1631.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	0.39602424	A1S	-0.71475489	IHT	34.0	XA	52.400151
LNGSTK	2.0365976	B1S	-1.5421612	IS	-3.0	XB	42.003541
COLSTK	21.272030	THETAB	21.272030	TH75MR	11.192030	XC	67.450190
PEDAL	29.430000	THETTR	37.9	TH75TR	24.0	XP	0.0
XAIN	5.2400151	XBIN	4.2003541	XCIN	6.7450190	XPIN	0.0
XBACTP	48.306436	XBACTI	4.0306435	RSTR.	0.0	PSTR	0.0
VXB	0.16892060E-1	THETAB	1.5065652	AA0F	4.3696401	QSTR	0.0
VYB	0.0	PHIB	-1.9203306	AA1F	1.6633212	RSTR	0.0
VZB	0.46791953E-3	BETAWF	0.0	BB1F	-0.79400935	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.9990106	MITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.10034130	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.95750331E-1	MMITR	0.0
ALFWF	-85.774801	EKTX	-0.47997000	EKWFX	0.13497850E-1	LMITR	0.0
CHITPP	1.6072313	EKTZ	0.59032509	EKWFZ	0.10720267	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	0.76192919E-1	KOMT	1.0	KUVT	0.04052013	YITR	0.0
MUXS	0.23302240E-4	CTSIG	0.10971605	LTOT	-70.0	ZITR	0.0
MUYS	0.0	CMSIG	0.20012200E-2	DTOT	45.079999	LITR	0.0
MUZS	-0.57490767E-6	CUMSIG	0.95377906E-6	TTR	1134.0900	MITR	0.0
LAMBMR	-0.60547603E-1	NZ	0.99906922	HPMR	2165.0455	NITR	0.0
DWSMMR	0.60547100E-1	VC	0.14349207E-4	KTRBLK	0.79599999	AXP	0.70062630
XMR	489.19520	MBAR	491.90659	VXBDOT	0.06371657E-3	AYP	0.19096122
YMR	-426.96053	JBAR	426.96053	VYBDOT	0.24698559E-3	AZP	-32.144231
ZMR	-10733.329	TBAR	10734.711	VZBDOT	-0.89298551E-4	VXP	0.16892060E-1
LMR	-7079.2023	LBARM	-2227.6661	PDOT	-0.32586075E-3	VYP	0.0
MMR	11069.005	MBARM	4549.1781	QDOT	-0.11617916E-4	VZP	0.46791953E-3
NMR	43674.585	QBAR	44070.136	RDOT	0.24738587	RSTR.	0.0
XWF	5.0650947	XT	34.751130	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-0.34860872E-6	YTR	1066.5278	BTR	2.0
ZWF	3.0104643	ZT	47.462951	ZTR	-380.18513	MADD	0.0
LWF	0.0	LT	-0.77565442E-6	LTR	6515.0991	XADD	0.0
MWF	-40.619809	MT	1433.4030	MTR	-12454.272	YADD	0.0
NWF	0.0	NT	0.10109652E-4	NTR	-34217.767	ZADD	0.0
XHT	34.751131	XVT	-0.65414960E-7	ALFHTT	-17.279165	NADD	0.0
YHT	0.0	YVT	-0.34860872E-6	ALFVTT	0.0	LADD	0.0
ZHT	47.462951	ZVT	0.01590511E-7	AABB1F	1.0431536		

UTTAS(S76)   1-21-77   30-AUG-77   RUN 56.

WEIGHT	19900.0	FSCG	347.0	V	1.0E-2	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	4432.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1170125	A1S	-2.1662586	IMT	29.111644	XA	43.018671
LNGSTK	0.46604420	B1S	-3.2874154	IS	-3.0	XB	48.350373
COLSTK	20.666855	THETA0	20.666855	TH75MR	10.586855	XC	63.667844
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.3018671	XBIN	4.8350373	XCIN	6.3667843	XPIN	0.0
XBACTP	53.594721	XBACTI	5.3594721	RSTR.	0.0	PSTR	0.0
VXB	0.16895922E-1	THETAB	0.90618033	AA0F	4.2907060	QSTR	0.0
VYB	-34.178771	PHIB	-2.0840477	AA1F	1.7875093	RSTR	0.0
VZB	0.26725624E-3	BETAWF	-75.457140	BB1F	-1.0544069	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.4013628	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.78816591E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.30188103E-1	MHITR	0.0
ALPWF	-85.769437	EKTX	-0.48011128	EKWFX	0.14512166E-1	LMITR	0.0
CHITPP	1.8140208	EKTZ	0.61333291	EKWFZ	0.20135630	QMITR	0.0
EKTR	0.0	EPSWT	-0.59999999	SIGWT	-2.0	XITR	0.0
QWF	1.0909686	KQMT	1.0	KQVT	0.97467943	YITR	0.0
MUXS	0.23291979E-4	CTSIG	0.10075413	LTOT	-40.0	ZITR	0.0
MUYS	-0.47146685E-1	CMSIG	0.47185023E-2	DTOT	83.579999	LITR	0.0
MUZS	-0.85160519E-6	COMSIG	0.93655062E-6	TTR	833.57356	MITR	0.0
LAMBMR	-0.60584954E-1	NZ	0.90981270	HPMR	2017.0531	NITR	0.0
DWSMMR	0.60584102E-1	VC	-183.18200	KTRBLK	0.79599999	AXP	0.11585129
XMR	167.32500	MBAR	805.71419	VXBDOT	-0.94778633E-2	AYP	-1.0495971
YMR	-437.71067	JBAR	437.71067	VYBDOT	-0.77753306	AZP	-31.920468
ZMR	-18505.732	TBAR	18570.458	VZBDOT	0.27681275	VXP	0.16895922E-1
LMR	-7081.7538	LBARM	-2844.6139	PDOT	-0.31770548	VYP	-34.178771
MMR	13604.078	MBARM	5237.5335	QDOT	0.12785392	VZP	0.26725624E-3
NMR	40020.815	QBAR	41057.787	RDOT	0.36736146	RSTR.	0.0
XWF	47.440233	XT	81.460144	XTR	0.0	PSIDMG	0.0
YWF	107.98115	YT	45.495100	YTR	783.30116	BTR	2.0
ZWF	-49.769889	ZT	27.078347	ZTR	-285.12070	MADD	0.0
LWF	-1.0993194	LT	-8.4888114	LTR	4785.3187	XADD	0.0
MWF	20.559011	MT	832.04629	MTR	-9147.6223	YADD	0.0
NWF	682.42517	NT	-1334.5516	NTR	-25132.837	ZADD	0.0
XMT	63.220689	XVT	18.239455	ALFMTT	-22.506437	NADD	0.0
YMT	33.758643	YVT	11.730937	ALPVTT	-89.968046	LADD	0.0
ZMT	50.105813	ZVT	-23.027465	AABU1F	2.0753913		

UTTAS(S76)   1-21-77   8-SEP-77   RUN 15.

WEIGHT	16450.0	FSCG	360.20000	V	140.0	PSITRZ	0.0
IX	5629.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	3.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-16.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-16.0	WLVT	273.0
KPR	15.0	PASCNT	776.0	WCMT	234.0	FSVT	695.0
FSMT	760.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.98458113	A1S	-1.9852822	IMT	-5.5920871	XA	43.047610
LNGSTK	13.971646	B1S	14.049764	IS	-3.0	XB	14.236564
COLSTK	19.401369	THETAE	19.401369	TH75MR	9.3213695	XC	55.750560
PEDAL	14.367741	THETTR	25.095365	TH75TR	11.593365	XP	41.717282
XAIN	4.3047610	XBIN	1.4236564	XCIN	9.5750559	XPIN	2.2520740
XBACTP	12.034096	XBACTI	1.2034096	RSTR.	0.0	PSTR	0.0
VXB	236.34443	THETAB	2.5980862	AAEP	3.2254081	QSTR	0.0
VYB	14.071704	PHIB	0.0	AA1P	-0.6235321	RSTR	0.0
VZB	10.724666	BETANF	3.3289218	BB1P	-0.30594065	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.5599459	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.32615951	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.69210171	MMITR	0.0
ALFWF	0.94984102	EKTX	1.5343765	EKWFX	0.89312566	LMITR	0.0
CHITPP	79.375061	EKTZ	1.7056234	EKWFZ	1.0106249	QMITR	0.0
EKTR	0.0	EPSWT	0.40320921	SIGWT	0.58448226	XITR	0.0
QWF	70.058495	KGHT	0.87177979	KQVT	0.83272602	YITR	0.0
MUXS	0.32631044	CTSIG	0.69313385E-1	CTOT	4.0380023	ZITR	0.0
MUYS	0.19410676E-1	CHSIG	-0.69356834E-2	DTOT	24.529136	LITR	0.0
MUZS	-0.22095509E-2	CQMSIG	0.51809971E-6	TTR	1332.0324	MITR	0.0
LAMBMR	-0.11429934E-1	NZ	0.99898766	HPMW	1782.0480	NITR	0.0
DWSMMR	0.91403034E-2	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.4091508
XMR	2446.6755	MBAR	-1609.3107	VXBDOT	-0.35603052E-1	AYP	-2.45341283E-1
YMR	-332.56300	JBAR	332.56300	VYBDOT	-0.17920802E-1	AZP	-32.129413
ZMR	-15975.513	TBAR	16003.026	VZBDOT	-0.21817436E-2	VXP	236.34443
LMR	-7969.2816	LBARM	-4894.0422	PDOT	-0.11125551E-1	VYP	14.071704
MMR	-11515.696	MBARM	-23377.282	QDOT	0.67055044E-2	VZP	10.724666
NMR	35453.421	QBAR	36274.110	RDOT	0.24370584E-2	RSTR.	0.0
XWF	-1600.4143	XT	-76.858392	XTR	0.0	PSIDMG	0.0
YWF	-610.33232	YT	-310.36477	YTR	1252.5459	BTR	2.0
ZWF	-310.79967	ZT	1120.0344	ZTR	-455.89032	MADD	0.0
LWF	964.01674	LT	-695.56533	LTR	7651.4251	XADD	0.0
MWF	-5841.6138	MT	31750.706	MTR	-14125.001	YADD	0.0
NWF	-5394.5209	NT	8084.1490	NTR	-30080.047	ZADD	0.0
XHT	-53.270064	XVT	-23.500327	ALFHTT	-6.2726595	NADD	0.0
YHT	-3.4373221	YVT	-314.42744	ALFVTT	3.3647947	LADD	0.0
ZHT	1119.7546	ZVT	0.27978117	AABB1F	8.6289573		

UTTAS(S76)   1-21-77   8-SEP-77   RUN 16.

WEIGHT	16450.0	FSCG	360.20000	V	150.0	PSITRE	0.0
IX	5629.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KPR	15.0	PASCNT	401.0	WEMT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-1.2311505	A1S	-2.2507430	IMT	-6.0057127	XA	42.305259
LNGSTK	15.355312	B1S	15.000003	IS	-3.0	XB	9.4150571
COLSTK	20.456547	THETA0	20.456547	TH75MR	10.376547	XC	62.353425
PEDAL	14.520298	THETTR	26.500155	TH75TR	13.000155	XP	41.327628
XAIN	4.2305259	XBIN	0.94150571	XCIN	6.2353425	XPIN	2.2316338
XBACTP	7.1076531	XBACTI	0.71076531	RSTR.	0.0	PSTR	0.0
VXB	253.28409	THETA0	2.3400044	AA0F	3.2010174	QSTR	0.0
VYB	15.100622	PHIB	0.0	AA1F	-9.5523587	RSTR	0.0
VZB	10.388259	BETAWF	3.3362536	BB1F	-0.40090413	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.5114746	HITR	0.0
Q	0.0	OMGMAT	1.0	AA1L	0.34991318	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.79826230	MHITR	0.0
ALFWF	0.90064477	EKTX	1.5097970	EKWFX	0.88231069	LHITR	0.0
CHITPP	78.591881	EKTZ	1.7302029	EKWFZ	1.0116081	QHITR	0.0
EKTR	0.0	EPSWT	0.40336253	SIGWT	0.58718065	XITR	0.0
QWF	79.918808	KQMT	0.87177979	KQVT	0.83265236	YITR	0.0
MUXS	0.34962707	CTSIG	0.69914954E-1	LTOT	3.9556618	ZITR	0.0
MUYS	0.20829979E-1	CHSIG	-0.77779817E-2	DTOT	24.517443	LITR	0.0
MUZS	-0.39750000E-2	CWMSIG	0.52703229E-6	TTR	1520.7905	MITR	0.0
LAMBMR	-0.12578397E-1	NZ	0.99938765	HPMR	2018.4040	NITR	0.0
DWSHMR	0.86025098E-2	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.3170944
XMR	2651.1387	MBAR	-1804.7521	VXBDOT	0.46448699E-2	AYP	-0.12504278
YMR	-397.14381	YBAR	397.14381	VYBDOT	-0.60602803E-1	AZP	-32.159010
ZMR	-16104.666	TBAR	16222.610	VZBDOT	-0.77015274E-2	VXP	253.28409
LMR	-9245.4561	LBARM	-4710.4015	PDOT	-0.39640717E-1	VYP	15.100622
MMR	-15004.012	MBARM	-25862.019	QDOT	0.47504139E-2	VZP	10.388259
NMR	40117.730	QBAR	41005.206	RDOT	-0.61705999E-2	RSTR.	0.0
XWF	-1916.6058	XT	-91.440581	XTR	0.0	PSIDMG	0.0
YWF	-699.58401	YT	-365.03700	YTR	1429.1819	BTR	2.0
ZWF	-346.38397	ZT	1342.0077	ZTR	-520.18069	MADD	0.0
LWF	1104.0617	LT	-790.75205	LTR	8730.4444	XADD	0.0
MWF	-6750.0992	MT	38062.640	MTR	-16116.931	YADD	0.0
NWF	-6104.1286	NT	10208.962	NTR	-44280.819	ZADD	0.0
XMT	-64.393691	XVT	-27.046889	ALFHTT	-6.6344276	NADD	0.0
YMT	-4.6877889	YVT	-361.14921	ALFVTT	3.3081177	LADD	0.0
ZMT	1342.5099	ZVT	0.29774870	AABB1F	9.5640660		

UTTAS(S76)   1-21-77   8-SEP-77   RUN 36.

WEIGHT	19900.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0		
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0		
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0		
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0		
OMEGMR	29.720000	NOSS	4.0	TASTMR	-10.0	PSTR.	0.0		
OMEGTR	137.07999	NSSS	5.0	TWSITR	-10.0	WLVT	273.0		
KFR	15.0	PASCNT	1385.0	WLHT	234.0	PSVT	695.0		
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0		
LATSTK	-0.10004719	A1S	-1.0992175	IHT	29.782701	XA	48.078954		
LNGSTK	3.1652100	B1S	1.6593656	IS	-3.0	XB	38.815490		
COLSTK	19.398150	THETA0	19.398150	TH75MR	9.3181582	XC	55.730490		
PEDAL	20.061020	THETTR	30.763617	TH75TR	17.263617	XP	25.987391		
XAIN	4.8870954	XBIN	3.8815490	XCIN	5.5730490	XPIN	1.4032026		
XBACTP	45.570009	XBACTI	4.5570009	RSTR.	0.0	PSTR	0.0		
VXB	0.16837379E-1	THETAB	4.0020304	AA0F	3.5010033	QSTR	0.0		
VYB	0.0	PHIB	-2.9721521	AA1F	-1.7846364	RSTR	0.0		
VZB	0.14303907E-2	BETAWF	0.0	BB1F	-1.1039717	TITR	0.0		
P	0.0	GAMC	0.0	AA0L	-6.3223581	HITR	0.0		
Q	0.0	OMGRAT	1.0	AA1L	-0.15722740E-1	JITR	0.0		
R	0.0	PSIDOT	0.0	BB1L	0.12897491	MHITR	0.0		
ALFWF	-13.230100	EKTX	-0.28104423	EKWFX	0.79995393E-5	LHITR	0.0		
CHITPP	-1.7606501	EKTZ	0.24242269	EKWFZ	0.11099360E-3	QHITR	0.0		
EKTR	2.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0		
QWF	0.27424265E-6	KQHT	0.87177979	KQVT	0.84852813	YITR	0.0		
MUXS	0.21179503E-4	CTSIG	0.89090090E-1	LTOT	-20.771652	ZITR	0.0		
MUYS	0.0	CHSIG	-0.31618580E-2	DTOT	26.627283	LITR	0.0		
MUZS	0.69619096E-6	CQMSIG	0.63165218E-6	TTR	1426.0223	MITR	0.0		
LAMBMR	-0.62058226E-1	NZ	0.99480526	HPMR	2290.0596	NITR	0.0		
DWSMMR	0.62058921E-1	VC	0.12232427E-3	KTRBLK	0.79599999	AXP	2.7478035		
XMR	1624.1981	MBAR	-653.19994	VXBDOT	0.94332139E-2	AYP	1.6699127		
YMR	-350.50612	JBAR	350.50612	VYBDOT	0.71851254E-2	AZP	-32.009246		
ZMR	-18510.732	TBAR	18571.011	VZBDOT	-0.25760780E-3	VXP	0.16837379E-1		
LMR	-8109.0185	LBARM	-3885.0195	PDOT	0.11449312E-3	VYP	0.0		
MMR	14079.140	MBARM	-5982.1947	QDOT	0.58359400E-4	VZP	0.14303907E-2		
NMR	41536.573	QBAR	42379.974	RDOT	-0.20709846E-3	RSTR.	0.0		
XWF	-0.58030052E-5	XT	6.0138894	XTR	0.0	PSIDMG	0.0		
YWF	0.0	YT	-0.34902633E-6	YTR	1340.0741	BTR	4.0		
ZWF	0.72173330E-5	ZT	8.4019962	ZTR	-488.03922	MADD	0.0		
LWF	0.0	LT	-0.77650361E-6	LTR	8190.9987	XADD	0.0		
MWF	-0.14306702E-3	MT	244.36003	MTR	-15121.081	YADD	0.0		
NWF	0.0	NT	0.97378347E-5	NTR	-41544.75	ZADD	0.0		
XHT	6.0138096	XVT	-0.79245321E-7	ALFHTT	-11.027455	NADD	0.0		
YHT	0.0	YVT	-0.34902633E-6	ALFVTT	0.0	LADD	0.0		
ZHT	8.4019962	ZVT	0.68427693E-7	AAB01F	2.1416620				

WEIGHT	19900.0	FSCG	308.20000	V	80.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSITR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	776.0	WLHT	234.0	PSVT	695.0
FSWT	700.40000	SWT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-1.0623009	A1S	-2.0402275	IMT	20.440000	XA	38.300569
LNGSTK	4.5056219	B1S	4.1527865	IS	-3.0	XB	33.796388
COLSTK	10.110277	THETAB	10.110277	TH75MR	8.0302776	XC	47.689235
PEDAL	14.079096	THETTR	24.035429	TH75TR	10.535429	XP	40.355132
XAIN	3.8360569	XBIN	3.3796388	XCIN	4.7689235	XPIN	2.1791200
XBACTP	40.545207	XBACTI	4.0545207	RSTR.	0.0	PSTR	0.0
VXB	67.351296	THETAB	4.8653151	AA0F	3.4938685	GSTR	0.0
VYB	0.0	PHIB	-1.6598391	AA1F	-2.6327256	RSTR	0.0
VZB	5.7332120	BETAWF	0.0	BB1F	-0.30590420	TITR	0.0
P	0.0	GAMC	0.0	AABL	-5.2941614	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.22598267	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.12645654	MHITR	0.0
ALFWF	-17.886901	EKTX	0.97795463	EKWFX	0.68983670	LHITR	0.0
CHITPP	62.295131	EKTZ	2.0161556	EKWFZ	1.0354097	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.9435622	KQHT	0.93257828	KQVT	0.84852815	YITR	0.0
MUXS	0.84718986E-1	CTSIG	0.92680286E-1	LTOT	-30.773802	ZITR	0.0
MUYS	0.0	CMSIG	-0.33631860E-2	DTOT	29.904997	LITR	0.0
MUZS	0.27591620E-2	CQMSIG	0.63035053E-6	TTR	1143.4731	MITR	0.0
LAMBMR	-0.39630381E-1	NZ	0.99597980	HPMR	1841.7407	NITR	0.0
DWSMMR	0.42397543E-1	VC	0.15147320	KTRBLK	1.0	AXP	2.7519105
XMR	1695.7923	MBAR	-694.77522	VXBDOT	0.22714213E-1	AYP	0.95865026
YMR	-588.14386	JBAR	588.14386	VYBDOT	0.30328207E-1	AZP	-32.044004
ZMR	-19082.472	TBAR	19146.568	VZBDOT	-0.31649546E-2	VXP	67.351296
LMR	-6557.0370	LBARM	-1790.7740	PDOT	-0.18030189E-2	VYP	0.0
MMR	12749.675	MBARM	-8628.1184	QDOT	0.10775330E-3	VZP	5.7332120
NMR	33114.781	QBAR	34883.357	RDOT	-0.69034810E-3	RSTR.	0.0
XWF	-150.96575	XT	87.518330	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-5.5843539	YTR	1074.3931	BTR	0.0
ZWF	305.61000	ZT	156.73581	ZTR	-391.12067	MADD	0.0
LWF	0.0	LT	-12.425187	LTR	6564.3677	XADD	0.0
MWF	-5164.2757	MT	4537.3034	MTR	-12118.222	YADD	0.0
NWF	0.0	NT	199.80347	NTR	-33294.477	ZADD	0.0
XHT	88.910543	XVT	-1.4002123	ALFHTT	-4.8552675	NADD	0.0
YHT	0.0	YVT	-5.5843539	ALFVTT	0.0	LADD	0.0
ZHT	155.81619	ZVT	0.91962239	AABB1F	2.6504380		

UTTAS(S76)   1-21-77   8-SEP-77   RUN 30.

WEIGHT	19900.0	PSCG	360.20000	V	80.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1595.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.0040095	A1S	-1.7075504	IMT	20.854582	XA	43.724440
LNGSTK	5.1095420	B1S	4.4729560	IS	-5.0	XB	31.945078
COLSTK	17.309717	THETA0	17.309717	TH75MR	7.2297178	XC	42.685738
PEDAL	14.777301	THETTR	22.972963	TH75TR	9.4729630	XP	40.637351
XAIN	4.3724440	XBIN	3.1945078	XCIN	4.2685737	XPIN	2.1943508
XBACTP	36.602150	XBACTI	3.6602150	RSTR.	0.0	PSTR	0.0
VXB	101.23605	THETAB	3.1841806	AA0F	3.3506099	QSTR	0.0
VYB	18.786043	PHIM	0.0	AA1F	-1.7830703	RSTR	0.0
VZB	5.6322758	BETAWF	0.7180346	BB1F	-0.66280670E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1698185	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.18997980	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.55283028E-1	MHITR	0.0
ALFWF	-0.5634027	EKTX	1.2607330	EKWFX	0.84858757	LHITR	0.0
CHITPP	75.326144	EKTZ	1.9474107	EKWFZ	1.0146738	QHITR	0.0
EKTR	0.0	EPSWT	0.53718633	SIGWT	1.3411107	XITR	0.0
QWF	13.453550	KGMT	0.87177979	KQVT	0.73900551	YITR	0.0
MUXS	0.12714545	CTSIG	0.91341501E-1	LTOT	-7.9578454	ZITR	0.0
MUYS	0.25559480E-1	CHSIG	-0.19846652E-2	DTOT	27.865971	LITR	0.0
MUZS	0.40802732E-3	CQMSIG	0.60450435E-6	TTR	944.43595	MITR	0.0
LAMBMR	-0.29097545E-1	NZ	0.99837233	HPMR	1518.5206	NITR	0.0
DWSMMR	0.29506372E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.7863109
XMR	1396.9626	HBAR	-410.00676	VXBDOT	-0.64754310E-3	AYP	0.66731189E-3
YMR	-470.51056	JBAR	470.51056	VYBDOT	0.19831183E-2	AZP	-32.121729
ZMR	-18821.216	TBAR	18878.000	VZBDOT	0.34937543E-3	VXP	101.23605
LMR	-5045.1019	LBARM	-1568.3721	PDOT	-0.63575550E-3	VYP	18.786043
MMR	16739.715	MBARM	-5990.4033	QDOT	0.67754790E-4	VZP	5.6322758
NMR	27202.375	QBAR	28101.829	RDOT	0.66905464E-4	RSTR.	0.0
XWF	-311.80402	XT	-25.297420	XTR	0.0	PSIDMG	0.0
YWF	-311.87802	YT	-103.97236	YTR	887.54548	BTR	4.0
ZWF	155.19384	ZT	-67.867341	ZTR	-323.04076	XADD	0.0
LWF	644.51240	LT	-225.29708	LTR	5421.7496	XADD	0.0
MWF	-4757.7542	MT	-1970.2643	MTR	-10008.679	YADD	0.0
NWF	-2600.9214	NT	2901.6654	NTR	-27499.117	ZADD	0.0
XMT	-31.858995	XVT	6.5615750	ALFMTT	1.6280460	MADD	0.0
YMT	-1.0589019	YVT	-102.11345	ALFVTT	12.354338	LADD	0.0
ZMT	-65.578941	ZVT	-2.2883980	AAB01F	1.7842988		

UTTAS(376)   1-21-77   6-SEP-77   RUN 31.

WEIGHT	19900.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	6260.0	WLCG	246.29799	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	36224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1087.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.86348915	A1S	-1.5604650	IMT	8.8186632	XA	44.603192
LNGSTK	6.3886975	B1S	6.0730387	IS	-3.0	XB	27.425096
COLSTK	17.246756	THETAB	17.246756	TH75MR	7.1667565	XC	42.292229
PEDAL	13.559147	THETTR	21.679255	TH75TR	8.1792552	XP	44.014338
XAIN	4.4603192	XBIN	2.7425096	XCIN	4.2292229	XPIN	2.3767125
XBACTP	30.699856	XBACTI	3.0699856	RSTR.	0.0	PSTR	0.0
VXB	134.95721	THETAB	3.3796634	AA0P	3.3119296	QSTR	0.0
VYB	16.863559	PHIB	0.0	AA1P	-2.8742610	RSTR	0.0
VZB	7.9703939	BETAWF	6.3493957	BB1P	0.12632837E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1637265	MITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.22886940	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.16515222	MMITR	0.0
ALFWF	-3.9247069	EKTX	1.4158427	EKWFX	0.89823934	LMITR	0.0
CHITPP	79.839941	EKTZ	1.7981927	EKWFZ	1.0101600	QMITR	0.0
EKTR	0.0	EPSWT	0.51349395	SIGWT	1.0473250	XITR	0.0
QWF	20.367207	KQMT	0.87177979	KQVT	0.79462050	YITR	0.0
MUXS	0.16952721	CTSIG	0.91656117E-1	LTOT	-1.4397898	ZITR	0.0
MUYS	0.21148509E-1	CHSIG	-0.29859606E-2	DTOT	25.389637	LITR	0.0
MUZS	0.11236073E-2	CQMSIG	0.59752579E-6	TTR	956.69496	MITR	0.0
LAMBMR	-0.21661152E-1	NZ	0.94819876	HPMR	1504.8521	NITR	0.0
DWSHMR	0.22784759E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.9105933
XMR	1606.9196	HBAR	-616.86174	VXBDOT	0.12561543E-1	AYP	-0.16855718E-2
YMR	-426.95984	JBAR	426.95984	VYBDOT	-0.32627503E-2	AZP	-32.117198
ZMR	-18875.292	TBAR	18934.996	VZBDOT	0.43332430E-3	VXP	134.95721
LMR	-5795.9561	LBARM	-1792.7761	PDOT	0.10823207E-3	VYP	16.863559
MMR	12008.346	MBARM	-9557.8988	QDOT	-0.59530808E-3	VZP	7.9703939
NMR	27009.950	QBAR	27848.879	RDOT	-0.51260118E-3	RSTR.	0.0
XWF	-479.33420	XT	5.1546576	XTR	0.0	PSIDMG	0.0
YWF	-339.94251	YT	-134.10840	YTR	899.80000	BTR	4.0
ZWF	62.290921	ZT	86.770994	ZTR	-327.23391	MADD	0.0
LWF	599.52227	LT	-293.47235	LTR	5492.1253	XADD	0.0
MWF	-4356.7096	MT	2462.4800	MTR	-10138.797	YADD	0.0
NWF	-2915.9429	NT	3742.0797	NTR	-27856.062	ZADD	0.0
XMT	4.2032710	XVT	0.87138657	ALFHTT	-1.4361324	NADD	0.0
YMT	-1.5080132	YVT	-132.39238	ALFVTT	7.8358880	LADD	0.0
ZMT	86.925516	ZVT	-0.15752187	AAB01F	2.8742887		

UTTAS(876) 1-21-77 8-SEP-77 RUN 32.

WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1070.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.02073773	A1S	-1.5633414	IHT	0.31000246	XA	44.020309
LNGSTK	0.3981912	B1S	0.3606896	IS	-3.0	XB	20.324412
COLSTK	17.012075	THETA0	17.012075	TH75MR	7.5320752	XC	44.575470
PEDAL	12.944977	THETTR	21.503468	TH75TR	0.0034600	XP	45.716960
XAIN	4.4020309	XBIN	2.0324412	XCIN	4.4575470	XPIN	2.4680510
XBACTP	22.376292	XBACTI	2.2376292	RSTR.	0.0	PSTR	0.0
VXB	168.60267	THETAB	3.9860996	AA0P	3.3062001	QSTR	0.0
VYB	16.864066	PHIB	0.0	AA1P	-4.5202006	RSTR	0.0
VZB	11.749545	BETAWP	5.2895393	BB1P	0.60694003E-2	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.5834114	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.27185975	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.32303940	MHITR	0.0
ALFWF	-0.98771667	EKTX	1.3024710	EKWFX	0.91903952	LHITR	0.0
CHITPP	81.464580	EKTZ	1.6997829	EKWFZ	1.0085354	QHITR	0.0
EKTR	0.0	EPSWT	0.50289539	SIGWT	0.91590287	XITR	0.0
QWF	29.298401	KUHT	0.87177979	KUVT	0.81027659	YITR	0.0
MUXS	0.21190075	CTSIG	0.92432559E-1	CTOT	1.0726475	ZITR	0.0
MUYS	0.21149145E-1	CHSIG	-0.49248732E-2	DTOT	24.755723	LITR	0.0
MUZ3	0.36479315E-2	CUHSIG	0.59650797E-6	TTR	1067.0070	MITR	0.0
LAMBMR	-0.14879368E-1	NZ	0.99762792	HPMR	1649.4045	NITR	0.0
DWSMMR	0.10527300E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.2400346
XMR	2015.2690	HBAR	-1017.4165	VXBDOT	0.52288777E-2	AYP	-0.23046003E-2
YMR	-421.45001	JBAR	421.45001	VYBDOT	-0.37855917E-2	AZP	-32.094532
ZMR	-19014.500	TBAR	19095.399	VZBDOT	0.67652910E-3	VXP	168.60267
LMR	-6391.2795	LBARM	-2281.6690	PDOT	-0.18188469E-3	VYP	16.864066
MMR	4361.1411	MBARM	-14997.523	QDOT	0.12982566E-2	VZP	11.749545
NMR	29664.677	QBAR	30523.973	RDOT	-0.69660390E-3	RSTR.	0.0
XWF	-691.52344	XT	6.4095838	XTR	0.0	PSIDMG	0.0
YWF	-406.32066	YT	-177.20119	YTR	1002.7339	BTR	4.0
ZWF	-42.916969	ZT	379.66204	ZTR	-364.96602	MADD	0.0
LWF	652.65220	LT	-386.33178	LTR	6125.4016	XADD	0.0
MWF	-3779.0582	MT	10780.571	MTR	-11307.863	YADD	0.0
NWF	-3567.0631	NT	4945.0128	NTR	-31068.040	ZADD	0.0
XHT	9.7063231	XVT	-3.2967392	ALFHTT	-4.7495133	NADD	0.0
YHT	-2.4433406	YVT	-174.75784	ALFVTT	5.0505320	LADD	0.0
ZHT	379.36969	ZVT	0.29235434	AA0B1P	4.5202058		

UTTAS(S76)   1-21-77   8-SEP-77   RUN 33.

WEIGHT	19900.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.26000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	923.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.06855381	A1S	-1.6793218	IHT	-1.2805797	XA	44.571538
LNGSTK	9.5633467	B1S	9.5936483	IS	-3.0	XB	16.913961
COLSTK	18.351533	THETA0	18.351533	TH75MR	8.2715338	XC	49.197087
PEDAL	12.753798	THETTR	22.199638	TH75TR	8.6996388	XP	46.246954
XAIN	4.4571538	XBIN	1.6913961	XCIN	4.9197087	XPIN	2.4972786
XBACTP	17.145528	XBACTI	1.7145528	RSTR.	0.0	PSTR	0.0
VXB	202.49728	THETAB	3.0486592	AA0F	3.2838338	QSTR	0.0
VYB	17.254081	PHIB	0.0	AA1F	-4.9227747	RSTR	0.0
VZB	10.785430	BETAWF	4.6120810	BB1F	-0.25252390E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.3454601	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.29737302	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.40102949	MHITR	0.0
ALFWF	-0.44969987	EKTX	1.3853399	EKWFX	0.92132256	LHITR	0.0
CHITPP	81.640199	EKTZ	1.6816221	EKWFZ	1.0083598	QHITR	0.0
EKTR	0.0	EPSWT	0.49612080	SIGWT	0.81172625	XITR	0.0
QWF	40.291239	KUWT	0.87177979	KUVT	0.82650066	YITR	0.0
MUXS	0.25429099	CTSIG	0.92687675E-1	LTOT	2.3851923	ZITR	0.0
MUYS	0.21638262E-1	CHSIG	-0.46761326E-2	DTOT	24.582415	LITR	0.0
MUZS	0.21600909E-3	COMSIG	0.59245885E-6	TTR	1256.5213	MITR	0.0
LAMBMR	-0.15284270E-1	NZ	0.99869149	HPMR	1922.7106	NITR	0.0
OWSMMR	0.15500279E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.7812894
XMR	1965.0700	HBAR	-966.02993	VXBDOT	-0.15978950E-1	AYP	0.38676194E-1
YMR	-456.70572	JBAR	456.70572	VYBDOT	0.21029988E-1	AZP	-32.136183
ZMR	-19053.314	TBAR	19131.576	VZBDOT	-0.59262148E-2	VXP	202.49728
LMR	-7429.3032	LBARM	-2845.4662	PDOT	0.10595650E-1	VYP	17.254081
MMR	3445.7038	MBARM	-16271.989	QDOT	-0.35024789E-2	VZP	10.785430
NMR	34627.469	QBAR	35981.791	RDOT	0.60976112E-3	RSTR.	0.0
XWF	-951.00761	XT	-6.3082097	XTR	0.0	PSIDMG	0.0
YWF	-488.85297	YT	-224.79843	YTR	1180.8310	BTR	0.0
ZWF	-85.416314	ZT	505.49636	ZTR	-429.78841	MADD	0.0
LWF	772.35105	LT	-491.30673	LTR	7213.3471	XADD	0.0
MWF	-4620.4655	MT	14345.381	MTR	-13316.277	YADD	0.0
NWF	-4315.1824	NT	6273.0481	NTR	-36586.108	ZADD	0.0
XMT	-1.2023415	XVT	-7.1858680	ALFHTT	-4.7507845	NADD	0.0
YMT	-2.7278083	YVT	-222.26863	ALFVTT	4.9065022	LADD	0.0
ZMT	505.06057	ZVT	0.43578593	AABB1F	4.9228394		

WEIGHT	19900.0	FSCG	360.20000	V	140.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TW3IMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TW3ITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1007.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1377135	A1S	-2.0796288	IHT	-2.6254759	XA	42.889290
LNGSTK	10.904463	B1S	11.377025	IS	-3.0	XB	11.468325
COLSTK	19.624000	THETAG	19.624000	TH75MR	9.5448082	XC	57.155052
PEDAL	13.208780	THETTR	24.182558	TH75TR	10.682558	XP	44.985617
XAIN	4.2889289	XBIN	1.1468325	XCIN	5.7155051	XPIN	2.4291681
XBACTP	9.8398411	XBACTI	0.98398411	RSTR.	0.0	PSTR	0.0
VXB	236.47862	THETAB	2.0155998	AA0F	3.2899344	QSTR	0.0
VYB	19.875613	PHIB	0.0	AA1F	-5.6721763	RSTR	0.0
VZB	8.3222676	BETANF	4.0157817	BB1F	-0.21711430	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.8022609	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.34307986	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.52956769	MHITR	0.0
ALFWF	-0.56851863	EKTX	1.4793429	EKWFX	0.90995941	LHITR	0.0
CHITPP	80.766110	EKTZ	1.6802424	EKWFZ	1.0092338	QHITR	0.0
EKTR	0.0	EPSHT	0.49615781	SIGWT	0.81257760	XITR	0.0
QWF	53.379471	KUHT	0.87177979	KQVT	0.82648275	YITR	0.0
MUXS	0.29667343	CTSIG	0.93300090E-1	LTOT	2.1640983	ZITR	0.0
MUYS	0.24925912E-1	CHSIG	-0.45449046E-2	DTOT	24.503156	LITR	0.0
MUZS	-0.50983063E-2	CQMSIG	0.59355839E-6	TTR	1606.5453	MITR	0.0
LAMBMR	-0.18478251E-1	NZ	0.99881479	HPMR	2444.7146	NITR	0.0
OWSMMR	0.13379945E-1	VC	0.14305114E-4	KTRBLR	1.0	AXP	1.1165268
XMR	1986.2941	HBAR	-930.91988	VXBDOT	-0.44989558E-2	AYP	-0.54746008E-1
YMR	-579.10414	JBAR	579.10414	VYBDOT	-0.29303009E-1	AZP	-32.127057
ZMR	-19197.737	TBAR	19274.787	VZBDOT	0.20539489E-1	VXP	236.47862
LMR	-9691.7562	LBARM	-3873.2451	PDOT	-0.16675502E-1	VYP	19.875613
MMR	1334.3227	MBARM	-18738.686	QDOT	0.63798505E-2	VZP	8.3222676
NMR	44017.007	QBAR	45242.028	RDOT	-9.20452169E-2	RSTR.	0.0
XWF	-1261.1144	XT	-16.434686	XTR	0.0	PSIDMG	0.0
YWF	-645.52005	YT	-302.53158	YTR	1509.7718	BTR	4.0
ZWF	-102.99720	ZT	784.87052	ZTR	-549.51279	MADD	0.0
LWF	1028.0193	LT	-660.15027	LTR	9222.7395	XADD	0.0
MWF	-6310.5390	MT	22267.272	MTR	-17025.737	YADD	0.0
NWF	-5722.4043	NT	8442.4288	NTR	-46777.739	ZADD	0.0
XHT	-6.1943411	XVT	-10.240345	ALFHTT	-5.6272312	NADD	0.0
YHT	-3.9946194	YVT	-298.53696	ALFVTT	4.8307647	LADD	0.0
ZHT	784.33351	ZVT	0.55781391	AAB1F	5.6763300		

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6268.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	986.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.3630394	A1S	-2.5009447	IMT	-2.8001108	XA	41.481003
LNGSTK	11.823817	B1S	12.446415	IS	-3.0	XB	8.2197262
COLSTK	20.440245	THETA0	20.440245	TH75MR	10.360245	XC	62.251535
PEDAL	13.518497	THETTR	25.470792	TH75TR	11.970792	XP	44.127029
XAIN	4.1481003	XBIN	0.82197261	XCIN	6.2251535	XPIN	2.3827976
XBACTP	5.6647397	XBACTI	0.56647396	RSTR.	0.0	PSTR	0.0
VXB	253.39864	THETAB	1.5016719	AA0F	3.3054297	QSTR	0.0
VYB	21.326423	PHIB	0.0	AA1F	-6.1142558	RSTR	0.0
VZB	6.6432341	BETAWF	4.6458358	BB1F	-0.35353374	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.7634701	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.37319753	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.61204397	MMITR	0.0
ALFWF	-0.75529766	EKTX	1.5402260	EKWFX	0.90169414	LHITR	0.0
CHITPP	80.130320	EKTZ	1.6064813	EKWFZ	1.0098696	QHITR	0.0
EKTR	0.0	EPSWT	0.49645635	SIGWT	0.81766713	XITR	0.0
OWF	60.667639	KOMT	0.87177979	KOVT	0.82633728	YITR	0.0
MUXS	0.31776184	CTSIG	0.93821943E-1	LTOT	1.9519770	ZITR	0.0
MUYS	0.26745306E-1	CHSIG	-0.44804303E-2	DTOT	24.509166	LITR	0.0
MUZS	-0.83119494E-2	CQMSIG	0.59635312E-6	TTR	1834.5744	MITR	0.0
LAMBMR	-0.20867926E-1	NZ	1.0007173	MPMR	2790.6589	NITR	0.0
OWSHMR	0.12555977E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	0.83776098
XMR	1938.6271	MBAR	-925.60031	VXBDOT	-0.22431863E-1	AYP	0.53106193E-1
YMR	-620.13087	JBAR	620.13087	VYBDOT	0.30503711E-1	AZP	-32.215273
ZMR	-19305.919	TBAR	19302.428	VZBDOT	-0.35945342E-1	VXP	253.39864
LMR	-10066.094	LBARM	-4468.4799	PDOT	0.15224445E-1	VYP	21.326423
MMR	118.07983	MBARM	-20179.185	QDOT	-0.98799490E-2	VZP	6.6432341
NMR	50311.795	QBAR	51644.092	RDOT	0.19845871E-2	RSTR.	0.0
XWF	-1453.1557	XT	-18.558516	XTR	0.0	PSIDMG	0.0
YWF	-738.43218	YT	-347.39607	YTR	1724.0642	BTR	4.0
ZWF	-99.495226	ZT	931.23112	ZTR	-627.50926	MADD	0.0
LWF	1102.6711	LT	-757.65063	LTR	10531.791	XADD	0.0
MWF	-7505.8338	MT	26419.285	MTR	-19442.328	YADD	0.0
NWF	-6547.7385	NT	9694.4696	NTR	-53417.255	ZADD	0.0
XMT	-6.8344707	XVT	-11.724846	ALFMTT	-5.8890562	NADD	0.0
YMT	-4.7094289	YVT	-342.68664	ALFVTT	4.8342614	LADD	0.0
ZMT	930.61485	ZVT	0.61629634	AABB1F	6.1244681		

UTTAS(3/0)   1-21-77   30-AUG-77   RUN 20.

WEIGHT	19920.0	FSCG	300.22400	V	1.0E-2	PSITR2	0.0
IX	6250.3	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41987.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.21999	NBSS	4.0	TRSTMR	-18.0	PSTR.	0.0
OMEGTR	124.92400	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1368.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTK	-0.31379518	AIS	-1.1812031	IHT	28.904350	XA	40.038792
LNGSTK	3.2392044	BIS	2.0727131	IS	-3.0	XB	38.553835
COLSTK	18.901455	THETAR	18.901455	TH75MR	8.8214558	XC	52.634100
PEDAL	10.330757	THETTR	20.435784	TH75TR	14.935784	XP	30.788319
XAIF	4.8035792	XBIN	3.8553835	XCIN	5.2634100	XPIN	1.8825259
XBALTF	45.492269	XBALTI	4.5492269	RSTR.	0.0	PSTR	0.0
VXB	0.16825008E-1	THETAB	5.5643004	AAPF	4.1900538	QSTR	0.0
VYB	0.0	PHIB	-2.7159900	AA1F	-2.2111319	RSTR	0.0
VZB	0.15799186E-2	BETAWF	0.0	BB1F	-1.3107922	TITR	0.0
P	0.0	GAML	0.0	AAOL	-7.0950209	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.13551170E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.18554457	MHITR	0.0
ALFAF	-10.333901	EKTX	-0.25261120	EKWFX	0.79995393E-5	LHITR	0.0
CHITPP	-2.1559659	EKTZ	0.20475172	EKWFZ	0.11099360E-3	QHITR	0.0
EKIH	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
UWF	0.35201145E-6	KGHT	0.87177979	KUVT	0.84852813	YITR	0.0
MUXS	0.25259099E-4	ETSIG	-0.80101900E-1	LTUT	-13.056564	ZITR	0.0
MUYS	0.0	CMSIG	-0.35117873E-2	UTOT	25.232740	LITR	0.0
MUZS	0.95159432E-6	COMSIG	0.66771653E-6	TIR	1319.4224	MITR	0.0
LAMDMR	-0.50675571E-1	NZ	0.99437635	HPHR	1926.8861	NITR	0.0
OMSPMR	0.50677555E-1	VC	0.11212716E-3	KTRBLA	0.79599999	AXP	3.0190747
XMR	1757.5472	MBAR	-814.85222	VXBDOT	0.12058483E-1	AYP	1.5219619
YMR	-335.21512	JBAR	336.21310	VYBDOT	-0.55403009E-2	AZP	-31.993382
ZMR	-10535.298	IBAR	18604.885	VZBDOT	0.16658214E-3	VXP	0.16825008E-1
LMR	-7577.0173	LBARM	-5525.5420	PDOT	-0.46695517E-5	VYP	0.0
MMR	13927.991	MBARM	-6120.2389	QDOT	-0.49479293E-4	VZP	0.15799186E-2
NMR	33926.147	WBAR	39222.332	RDOT	0.19616400E-3	RSTR.	0.0
XWF	-0.08943041E-5	XT	4.2616272	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-0.47440466E-6	YTR	1239.9436	BTR	4.0
ZWF	0.25722600E-5	ZT	5.9459754	ZTR	-451.50347	MADD	0.0
LWF	0.0	LT	-0.10557284E-5	LTR	7574.4448	XADD	0.0
MWF	-0.15752429E-3	MT	172.93656	MTR	-13382.885	YADD	0.0
NWF	0.0	NT	0.13258122E-4	NTR	-38417.588	ZADD	0.0
XHT	4.2515275	XVT	-0.11051500E-6	ALFHTT	-10.099429	NADD	0.0
YHT	0.0	YVT	-0.47440466E-6	ALFVTT	0.0	LADD	0.0
ZHT	5.9459755	ZVT	0.89697293E-7	AABB1F	2.5704631		

WEIGHT	19900.0	FSCG	350.20000	V	40.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	32224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	881.0	FLHT	234.0	FSVT	695.0
FSHT	700.00000	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTK	-1.7250699	AIS	-2.4287358	IHT	27.893837	XA	39.226938
LNGSTK	4.2502986	BIS	4.1282743	IS	-3.0	XB	34.953036
COLSTK	17.325106	THETAO	17.325106	TH75MR	7.2451063	XC	42.781915
PEDAL	12.970276	THETTR	21.192404	TH75TR	7.6924045	XP	45.624647
XAIN	3.9226938	XBIN	3.4953036	XCIN	4.2781915	XPIN	2.4636668
XBALTP	41.559011	XBALTI	4.1559610	KSTR.	0.0	PSTR	0.0
VXB	67.389759	THETAB	4.4909877	AA0F	4.0823362	QSTR	0.0
VYB	0.0	PHIB	-1.4481358	AA1F	-2.5977633	RSTR	0.0
VZB	5.2932611	BETAWF	0.0	BB1F	-0.18374639	TITR	0.0
P	0.0	GAML	0.0	AA0L	-5.1521993	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.25308848	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13440699	MHITR	0.0
ALFWF	-13.618771	EKTX	1.1118810	EKWFX	0.76216400	LHITR	0.0
CHITPP	67.056770	EKTZ	2.0433416	EKWFZ	1.0242824	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	9.5512361	KWHT	0.67177979	KOVT	0.84852813	YITR	0.0
MUXS	0.95205745E-1	CTSIG	0.82086912E-1	LTOT	-21.885050	ZITR	0.0
MUYS	0.0	CMSIG	-0.29463899E-2	DTOT	26.811485	LITR	0.0
MUZS	0.24261227E-2	CUMSIG	0.65578871E-6	TTR	958.71363	MITR	0.0
LAMBMR	-0.33494924E-1	NZ	0.99640032	HPMR	1401.4072	NITR	0.0
DWSHMR	0.33520132E-1	VC	0.12208342	KTRBLK	1.0	AXP	2.5065454
XMR	1679.4792	MBAR	-685.66110	VXBDOT	-0.12867916E-1	AYP	0.77569178
YMR	-432.97659	JBAR	432.97659	VYBDOT	-0.34533444E-1	AZP	-32.058404
ZMR	-16965.550	TBAR	19046.911	VZBDOT	0.33855262E-2	VXP	67.389759
LMR	-5459.3799	LBARM	-1414.2962	PDOT	-0.48452913E-3	VYP	0.0
MMR	14375.082	MBARM	-6936.0676	QDOT	-0.72125819E-5	VZP	5.2932611
NMR	27696.019	UBAR	28926.054	RDOT	-0.21581300E-3	RSTR.	0.0
XWF	-199.69333	XT	7.2214542	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-7.5868248	YTR	920.98311	BTR	0.0
ZWF	201.04695	ZT	31.138914	ZTR	-327.92439	MADD	0.0
LWF	0.0	LT	-16.880685	LTR	5503.7139	XADD	0.0
MWF	-5112.6976	MT	695.18576	MTR	-10160.190	YADD	0.0
NWF	0.0	NT	211.67241	NTR	-27914.840	ZADD	0.0
XHT	9.2176101	XVT	-1.9961556	ALFHTT	-0.81411409	NADD	0.0
YHT	0.0	YVT	-7.5868248	ALFVTT	0.0	LADD	0.0
ZHT	30.245697	ZVT	1.0932174	AABB1F	2.5042536		

WEIGHT	19900.0	FSCG	300.20000	V	60.0	PSITR2	0.0
IX	6266.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41527.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36229.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.22000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
RPR	15.0	PASCNT	1440.0	WCMT	234.0	FSVT	695.0
FSMT	700.40000	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTR	-1.2122702	A1S	-1.6550948	IMT	14.330139	XA	43.673311
LNGSTR	5.3653030	B1S	5.1289117	IS	-3.0	XB	31.041190
COLSTR	16.721016	THETA0	16.721016	TH75MR	6.6410161	XC	39.006350
PEDAL	12.731673	THETTR	20.221092	TH75TR	6.7210927	XP	46.307735
XAIN	4.3673310	XBIN	3.1041190	XCIN	3.9006350	XPIN	2.5009927
XMALTP	35.905114	XMACT1	3.5905114	RSTR.	0.0	PSTR	0.0
VXB	101.10604	THETAB	3.7220496	A0OF	3.9494658	QSTR	0.0
VYB	13.120026	PHIB	0.0	A1IF	-2.6165674	RSTR	0.0
VZB	6.5044088	BETAWF	6.3092960	B1IF	0.38540009E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.3200075	MITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24000342	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.11760131	MMITR	0.0
ALFRF	-5.5374417	EKTX	1.3646567	EKWFX	0.00002006	LMITR	0.0
CHITPP	78.184370	EKTZ	1.8481718	EKWFZ	1.0110156	GMITR	0.0
EKTR	0.0	EPSWT	0.51369295	SIGWT	1.0522727	XITR	0.0
QWF	16.564457	KUWT	0.87177979	KOVT	0.79371616	YITR	0.0
MUXS	0.13965044	CTSIG	0.81401667E-1	ETOT	-3.5021200	ZITR	0.0
MUYS	0.16108956E-1	CHSIG	-0.28445609E-2	DTOT	25.572674	LITR	0.0
MUZS	0.17647716E-2	CQMSIG	0.63440565E-6	TIR	817.72429	MITR	0.0
LAMBMR	-0.22637400E-1	NZ	0.99786500	HPMR	1178.1691	NITR	0.0
DWSHMR	0.24402100E-1	VC	0.35762786E-5	KTHBLR	1.0	AXP	2.0963005
XMR	1647.5645	HBAR	-660.63335	VXBDOT	0.63759473E-2	AYP	-0.19661944E-2
YMR	-305.11219	JBAR	305.11219	VYBDOT	-0.25346164E-2	AZP	-32.106148
ZMR	-16826.017	TBAR	16887.912	VZBDOT	0.60409047E-3	VXP	101.10604
LMR	-4978.5606	LBARM	-1426.9873	PDOT	0.19421502E-3	VYP	13.120026
MMR	14126.250	MBARM	-7116.0778	QDOT	-0.37627559E-3	VZP	6.5044088
NMR	23236.006	QBAR	23981.978	RDOT	-0.87469705E-4	HSTR.	0.0
XWF	-357.44417	XT	-16.808468	XTR	0.0	PSIDMG	0.0
YWF	-270.53416	YT	-106.32396	YTR	768.46662	BTR	4.0
ZWF	97.160630	ZT	-38.698637	ZTR	-279.69951	MADD	0.0
LWF	519.33230	LT	-232.68781	LTR	4694.3325	XADD	0.0
MWF	-4357.5044	MT	-1118.1092	MTR	-8666.0231	YADD	0.0
NWF	-2397.4722	NT	2966.9762	NTR	-23804.657	ZADD	0.0
XHT	-16.049736	XVT	1.2012702	ALFHTT	0.80923687	NADD	0.0
YHT	-1.1947755	YVT	-105.12919	ALFVTT	7.9724576	LADD	0.0
ZHT	-39.404776	ZVT	-0.28686093	AA0D1F	2.6168512		

UITAS(S76)   1-21-77   30-AUG-77   RUN 25.

WEIGHT	19900.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780400E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.52300	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	13.0	PASCNT	1259.0	WLHT	234.0	FSVT	695.0
FSHT	700.42402	SHT	45.0	SVT	32.340000	QSTR.	0.0
LATSTK	-0.09315247	A1S	-1.5454155	IHT	0.59358695	XA	44.417797
LNGSTK	0.0564056	B1S	0.1933457	IS	-3.0	XB	21.602806
COLSTK	16.812650	THETA0	16.812650	TH75MR	6.7325506	XC	39.579067
PEDAL	11.417656	THETTR	19.416839	TH75TR	5.5168395	XP	49.951045
XAIN	4.4417796	XBIN	2.1602805	XCIN	3.3579067	XPIN	2.6972863
XBALTR	25.636863	YBACTI	2.5636863	RSIR.	0.0	PSTR	0.0
VXB	134.60548	THETAB	5.3378350	AA0P	3.9493450	QSTR	0.0
VYB	12.078958	PHIB	0.0	AA1P	-5.1264332	RSTR	0.0
VZB	12.577139	BETAWF	4.6942014	BB1P	0.81208165E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.2899468	HITR	0.0
D	0.0	OMGRAT	1.0	AA1L	0.30038820	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.35524411	MHITR	0.0
ALPHWF	-0.40677666	EKTX	1.4073610	EKWFX	0.91881679	LHITR	0.0
CHITPP	81.447448	EKTZ	1.6600376	EKWFZ	1.0085525	QHITR	0.0
EKTR	0.0	EPSWT	0.49694201	SIGWT	0.82617948	XITR	0.0
DWF	25.905665	KUHT	0.67177979	KUVT	0.82610313	YITR	0.0
MUXS	0.18631546	CTSIG	0.82189798E-1	CTOT	2.3915982	ZITR	0.0
MUYS	0.16661659E-1	CHSIG	-0.59776573E-2	QTOT	24.518840	LITR	0.0
MUZS	0.75766729E-2	CQMSIG	0.63438592E-6	TTR	830.17669	MITR	0.0
LAMBMR	-0.11163662E-1	NZ	0.99578244	HPMR	1162.6345	NITR	0.0
DWSHMR	0.15769735E-1	VC	-0.71525573E-9	KTRBLK	1.0	AXP	2.9882978
XMR	2303.0555	MBAR	-1367.0166	VXBDOT	-0.49460132E-2	AYP	0.21466639E-2
YMR	-319.59965	JBAR	319.59966	VYBDOT	0.61987520E-4	AZP	-32.030126
ZMR	-16970.578	TBAR	19670.784	VZBDOT	-0.57830071E-2	VXP	134.60548
LMR	-4955.5729	LBARM	-1814.3172	PDOT	0.45116379E-3	VYP	12.078958
MMR	3156.5122	MBARM	-13932.761	QDOT	-0.37894720E-5	VZP	12.577139
NMR	23009.315	QBAR	23665.787	RDOT	-0.51093498E-3	RSTR.	0.0
XWF	-611.57015	X1	1.2539170	XTR	0.0	PSIDMG	0.0
YWF	-310.60200	YT	-142.13058	YTR	780.16919	BTR	0.0
ZWF	-55.496263	ZT	302.93865	ZTR	-283.95888	MADD	0.0
LWF	505.62475	LT	-318.28750	LTR	4765.8194	XADD	0.0
MWF	-2962.5278	MT	8602.0505	MTR	-8797.9925	YADD	0.0
NWF	-2823.8990	NT	3966.2674	NTR	-24172.239	ZADD	0.0
XHT	5.1311051	XVT	-3.0771881	ALFHT1	-4.2022194	NADD	0.0
YHT	-1.0317280	YVT	-140.29887	ALFVT1	5.1838417	LADD	0.0
ZHT	302.61335	ZVT	0.32530441	AA0M1F	5.1270763		

UTTAS(S/6)   1-21-77   30-AUG-77   RUN 24.

WEIGHT	17927.0	FSCG	368.20000	V	100.0	PSITR2	0.0
IX	6265.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.2	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36224.0	TIME	0.20000000E-1	DELSMR	3.0	VZSTR.	0.0
OMEGMR	27.019999	NOSS	4.0	TWSTMR	-16.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	650.0	WLMT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.60324745	A1S	-1.5677168	IMT	-1.8797819	XA	44.623453
LNGSTK	8.9731611	B1S	9.4976635	IS	-5.0	XB	18.292716
COLSTK	17.340654	THETA0	17.346654	TH75MR	7.2686542	XC	42.929090
PEDAL	10.657654	THETTR	18.900239	TH75TR	5.4002394	XP	52.057400
XAIN	4.4623453	XBIN	1.8292716	XCIN	4.2929069	XPIN	2.8110265
XBALTP	20.552121	XBALTI	2.0552121	RSTR.	0.0	PSTR	0.0
VXB	155.46774	THETAB	4.5166793	AA0F	3.9197562	QSTR	0.0
VYB	11.456962	PHIB	0.0	AA1F	-5.6288775	RSTR	0.0
VZB	13.309229	BETAMF	3.6681342	BB1F	0.12125720	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.6822006	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.31935992	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.41952387	MHITR	0.0
ALFMF	3.7418217	EKTX	1.3719251	EKMFX	0.92853146	LHITR	0.0
CHITPP	62.194729	EKTZ	1.6431130	EKMFZ	1.0076052	UHITR	0.0
EKTR	0.0	EPSMT	0.48668135	SIGMT	0.64559151	XITR	0.0
QWF	39.660946	KGHT	0.87177979	KUVT	0.83105651	YITR	0.0
MUXS	0.23371069	CTSIG	0.82150450E-1	CTOT	3.8025324	ZITR	0.0
MUYS	0.15403377E-1	CHSIG	-0.61439803E-2	DTOT	24.536173	LITR	0.0
MUZS	0.61703265E-2	CQMSIG	0.62963336E-6	TTR	922.25174	MITR	0.0
LAMBMR	-0.65743214E-2	NZ	0.94695683	HPMR	1264.5059	NITR	0.0
DWSHMR	0.15844547E-1	VL	0.0	KTRBLK	1.0	AXP	2.5064591
XMR	2421.2215	HBAR	-1425.6091	VXBDOT	-0.27220266E-1	AYP	-0.41892049E-2
YMR	-319.71794	JBAR	319.71794	VYBDOT	0.22932264E-2	AZP	-32.077426
ZMR	-19961.296	TBAR	19963.510	VZBDOT	-0.34188588E-2	VXP	168.46774
LMR	-5491.7556	LBARM	-2234.3714	PDOT	-0.14403449E-2	VYP	11.456982
MMR	1651.5269	MBARM	-15216.386	QDOT	-0.29652105E-3	VZP	13.309229
NMR	25159.053	WBAR	25841.164	RDOT	0.15615332E-2	RSTR.	0.0
XWF	-910.40431	XT	-23.175554	XTR	0.0	PSIDMG	0.0
YWF	-505.51512	YT	-179.14401	YTR	866.69760	BTR	4.0
ZWF	-130.65036	ZT	403.49751	ZTR	-315.45275	MADD	0.0
LWF	577.22524	LT	-592.41652	LTR	5294.3961	XADD	0.0
MWF	-5519.8565	MT	11449.653	MTR	-9773.7772	YADD	0.0
NWF	-5244.7590	NT	4997.8460	NTR	-26853.180	ZADD	0.0
XHT	-12.581211	XVT	-10.594342	ALFHTI	-4.0134283	NADD	0.0
YHT	-1.8756425	YVT	-177.22636	ALFVTI	-3.8403727	LADD	0.0
ZHT	403.16260	ZVT	6.3947692	AAHB1F	5.6301834		

UTTAS (5/9) 1-21-77 30-AUG-77 RUN 25.

WEIGHT	1990[illegible].2	FSCG	362.27822	V	122.2	PSITR2	2.2
IX	[illegible]	WLCG	265.24999	DELS	-5.2	VXSTR.	2.2
IY	41[illegible]7.[illegible]	[illegible]	2.2578262?E-2	VSOUND	1117.2	VYSTR.	2.2
IZ	[illegible]	TIME	2.2[illegible]E-1	DELSTR	2.2	VZSTR.	2.2
[illegible]	27.21[illegible]	MASS	6.2	[illegible]	-18.2	PSTR.	2.2
[illegible]	12[illegible]	[illegible]	5.2	[illegible]	-18.2	RLVT	273.2
KFP	13.2	PASCNT	629.2	RLHT	238.2	FSVT	595.2
FSHT	[illegible]	SHT	45.2	SVT	32.362222	GSTR.	2.2
LATSTK	-2.?8715326	AIS	-1.8672228	IHT	-3.7721621	XA	53.832417
LNGSTK	1?.?3?3?5	BIS	11.3?6891	IS	-3.2	XB	12.796119
COLSTK	18.372131	THETAZ	18.372131	THTSWP	8.2921315	XC	69.325823
PEDAL	1?.1?3?3?	THETIT	19.573613	THTSTW	6.2735138	XP	53.595432
XAIT	6.393?615	XEIT	1.2797119	XCIT	3.9325823	XPIT	2.8782779
XCALTH	13.3?3?6?7	XCALTI	1.3345267	PSTR.	2.2	PSTR	2.2
VXB	2?2.3?2?3	THETAB	3.8825853	AASP	3.9337528	QSTR	2.2
VYB	12.1?3?7?	PHIB	2.2	AAIP	-6.6264622	RSTR	2.2
VZB	13.733512	BETAAF	3.2957229	BEIP	2.8192219?E-1	TITR	2.2
P	2.2	GAMC	2.2	AAZL	-5.5717468	HITR	2.2
Q	2.2	DPGRAT	1.2	BBIL	7.3585332?	DITR	2.2
R	2.2	PSIDOT	2.2	BBIL	2.5462?47?	HHITR	2.2
ALPHAF	1.22?5???	EATX	1.4238563	EPAPX	2.9218?653	LMITR	2.2
[illegible]	?1.?[illegible]	EATZ	1.5445?9?	EPAPZ	1.2683161	DHITR	2.2
BETA	2.2	EPSAT	2.68?78722	SIGAT	2.?8221937	XITR	2.2
[illegible]	33.21[illegible]	[illegible]	4.2717797?	[illegible]	2.83?8?235	YITR	2.2
[illegible]	2.2797?2?2	CTSIG	2.8249262?E-1	[illegible]	8.3275932	ZITR	2.2
[illegible]	2.1[illegible]E-1	CHSIG	-?.69659?6?E-2	[illegible]	24.6275?2	LITR	2.2
[illegible]	2.?3?[illegible]E-2	CQHSIG	?.631??1?6?E-?	[illegible]	1113.?291	MITR	2.2
[illegible]	-2.[illegible]E-2	HZ	2.9972?215	[illegible]	1523.4625	NITR	2.2
[illegible]	2.1[illegible]E-1	VL	2.2	[illegible]	1.2	AXP	2.1714997
[illegible]	2?13.71??	[illegible]	-1616.3235	VXBDOT	2.7349225?E-3	AYP	-2.3237385?E-1
[illegible]	-3?3.2?7??	[illegible]	363.25766	VYBDOT	-7.1829?35?8E-1	AZP	-32.278979
[illegible]	-1?2??.7??	[illegible]	19141.251	VZBDOT	2.14593?23E-1	VXP	222.34243
[illegible]	-????.7??	[illegible]	-2971.2332	PDOT	-2.11235518E-1	VYP	12.153878
[illegible]	-2?3?.3?7?	[illegible]	-17?67.79?	QDOT	2.5246?915E-2	VZP	13.733512
[illegible]	2????.2?3	[illegible]	37?66.292	RDOT	-2.2?8?6?5?E-2	RSTR.	2.2
[illegible]	-1?7?.7?7?	XT	-47.962595	XTP	2.2	PSIDMG	2.2
[illegible]	-?3?.??3?7	YT	-235.32979	YTP	1?98.?1??	STR	2.2
[illegible]	-??7.?9??9	ZT	6?2.96711	ZTP	-381.27644	MADD	2.2
[illegible]	7?3.?2?7?	LT	-513.91625	LTP	8394.8492	XADD	2.2
[illegible]	-?2?3.?3??	MT	1?17?.141	MTP	-11?76.911	YADD	2.2
[illegible]	-?3??.2?37	NT	6369.5874	NTP	-32?33.869	ZADD	2.2
[illegible]	-3?.?[illegible]	XVT	-17.214163	ALPHTT	-?.67?513?	NADD	2.2
[illegible]	-?.?[illegible]	YVT	-232.39378	BETATT	3.?2?19?7	LADD	2.2
[illegible]	?-?.?[illegible]	ZVT	4.2?7?3?1?	AASCIP	6.?2?6?12?		

UTTAS(375)   1-21-77   3-AUG-77   RUN 25.

WEIGHT	15920.2	PSCG	362.22222	T	182.2	PSITR2	2.2
IX	5222.2	WLCG	245.29999	DELS	-5.2	VXSTR.	2.2
IY	41557.2	RHO	7.23782722E-2	VSOUND	1117.2	VYSTR.	2.2
IZ	52224.2	TIME	[illegible]	DELSMR	2.2	VZSTR.	2.2
OMEGMR	27.019999	NESS	4.2	TASTMR	-18.2	PSTR.	2.2
OMEGTR	124.52222	NSSS	5.2	TASITR	-16.2	ALVT	273.2
KFR	15.2	PASCNT	557.2	XCMT	234.2	PSVT	595.2
FSMT	[illegible]	SMT	45.2	SVT	32.322222	DSTR.	2.2
LATSTK	-1.3814721	AIS	-2.3505522	IHT	-4.9815523	XA	41.356211
LNGSTK	[illegible]	BIS	14.191254	IS	-3.2	XB	5.3448619
COLSTK	19.889183	THETAS	19.889183	THTSMR	9.8091839	XC	56.827488
PEDAL	9.5431159	THETTR	26.436139	THTSTR	7.4361345	XP	54.864939
XAIN	2.1353211	XBIN	2.53888819	XCIN	3.9827399	XPIN	2.9828297
XPALTR	[illegible]	XPALTI	7.4252255	PSIR.	2.2	PSTR	2.2
VXB	239.15842	THETAB	3.4178892	AAZP	3.9789369	QSTR	2.2
VYB	[illegible]	PHIB	2.2	AAIP	-5.2786641	RSTR	2.2
VZB	14.128119	BETABP	3.3121981	BBIP	-2.25185197	TITR	2.2
P	2.2	GAMC	2.2	AAZL	-7.2155824	HITR	2.2
Q	2.2	DTGPRT	1.2	AAIL	7.82915279	JITR	2.2
R	2.2	PSIDOT	2.2	BBIL	2.73772273	MHITR	2.2
ALPHAF	1.8824815	EATX	1.5188539	EPHFX	2.96574532	LHITR	2.2
CHITFP	[illegible]	EATZ	1.5782574	EPHFZ	1.2295562	QHITR	2.2
EATH	2.2	EPSFT	2.45312197	SIGMT	2.50294588	XITR	2.2
GAR	[illegible]	KAPT	2.87177979	KAVT	2.53276792	YITR	2.2
MUFS	[illegible]	CTSIG	2.53119295E-1	LTOT	4.9213139	ZITR	2.2
MUYS	[illegible]	CHSIG	-2.51593218E-2	UTOT	24.675178	LITR	2.2
MUZS	[illegible]	COMSIG	4.63979141E-6	TTR	1416.5165	MITR	2.2
LAMBDA	-2.84473329E-2	NZ	2.99997292	HPPR	1926.7232	NITR	2.2
UPSMR	[illegible]	VL	2.71525573E-5	KTHBLK	1.2	AXP	1.9265274
XMR	2299.3354	MBAR	-1893.2357	VXBDOT	-2.28245116E-1	AYP	-2.16698577E-1
YMR	-599.22497	JBAR	399.22497	VYBDOT	-2.25285832E-2	AZP	-32.183417
ZMR	-19151.422	TBAR	19256.912	VZBDOT	-2.41929991E-1	VXP	236.16692
LMR	-2834.3454	LBARR	-4232.2417	PDOT	-2.44162569E-2	VYP	14.297877
MMR	-7411.1415	MBARR	-21729.536	QDOT	-2.98812582E-2	VZP	14.124114
NMR	[illegible]	NBAR	38811.928	RDOT	2.24953726E-2	PSTR.	2.2
XHF	-1741.5575	XT	-77.268978	XTR	2.2	PSIDMG	2.2
YHF	[illegible]	YT	-318.64487	YTR	1331.1441	BTR	4.2
ZHF	[illegible]	ZT	956.84639	ZTR	-464.51415	MADD	2.2
LHF	[illegible]	LT	-697.72122	LTR	8131.5557	XADD	2.2
MHF	[illegible]	MT	27124.274	MTR	-15211.863	YADD	2.2
NHF	-3647.5853	NT	5591.8481	NTR	-41244.675	ZADD	2.2
XHT	-33.321336	XVT	-23.347541	ALFHTT	-5.2759495	NADD	2.2
YHT	[illegible]	YVT	-315.17976	ALFVTT	3.3940514	EADD	2.2
ZHT	955.72499	ZVT	9.12139963	AABMIP	8.2745127		

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6250.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36264.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSIMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	565.0	WLHT	234.0	FSVT	695.0
FSMI	[illegible]	SMI	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-1.7014538	A1S	-2.7688096	IHT	-5.6004066	XA	39.365913
LNGSTK	13.605529	B1S	15.688911	IS	-3.0	XB	1.2172113
COLSTK	20.842678	THETAW	20.842678	TH75MR	10.762678	XC	64.766739
PEDAL	9.4193282	THETTR	21.654542	TH75TR	8.3545420	XP	55.490884
XAIN	3.9365913	XBIN	0.12172113	XCIN	6.4766739	XPIN	2.9964298
XBACIP	-0.68600302	XBACTI	-0.68600302E-1	RSTR.	0.0	PSTR	0.0
VXB	253.09068	THETAB	3.1818554	AAGP	4.0124304	QSTR	0.0
VYB	15.289736	PHIB	0.0	AA1F	-8.6650206	RSTR	0.0
VZB	14.070379	BETAWF	3.3652548	BB1F	-0.44662349	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-8.6208362	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.44952033	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.84590157	MHITR	0.0
ALFWF	1.4507559	EKTX	1.5412333	EKWFX	0.89614266	LMITR	0.0
CHIFPP	79.649333	EKTZ	1.6987666	EKWFZ	1.0103506	QHITR	0.0
EKIN	0.0	EPSWT	0.48365254	SIGWT	0.59228487	XITR	0.0
QWF	60.532617	KGMT	0.87177979	KQVT	0.83251304	YITR	0.0
MUXS	0.34962889	CTSIG	0.83552885E-1	LTOT	4.9574282	ZITR	0.0
MUYS	0.21096644E-1	CHSIG	-0.89056100E-2	DTOT	24.688271	LITR	0.0
MUZS	0.11099590E-2	CQMSIG	0.64451969E-6	TTR	1615.1310	MITR	0.0
LAMBMR	-0.90937573E-2	NZ	0.99893649	HPMR	2171.7298	NITR	0.0
DWSHMR	0.16203716E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.7512953
XMR	3077.0172	HBAR	-2066.3996	VXBDOT	-0.25609034E-1	AYP	-0.10429558
YMR	-466.50308	JBAR	466.50308	VYBDOT	-0.49632113E-1	AZP	-32.140161
ZMR	-19257.647	TBAR	19367.066	VZBDOT	-0.17732964E-1	VXP	253.09068
LMR	-5770.9875	LBARM	-4679.8183	PDOT	-0.28621096E-1	VYP	15.289736
MMR	-10452.705	MBARM	-23658.565	QDOT	0.46496791E-2	VZP	14.070379
NMR	43127.215	QBAR	44206.196	RDOT	0.11705986E-2	RSTR.	0.0
XWF	-1958.9068	XT	-94.834451	XTR	0.0	PSIDMG	0.0
YWF	-711.87796	YT	-368.90397	YTR	1517.8399	DTR	4.0
ZWF	-445.61166	ZT	1184.2084	ZTR	-552.44948	MADD	0.0
LWF	1123.7017	LT	-506.89806	LTR	9272.0273	XADD	0.0
MWF	-5779.3304	MT	33562.126	MTR	-17116.726	YADD	0.0
NWF	-6284.0671	NT	10294.347	NTR	-47027.728	ZADD	0.0
XHT	-68.043305	XVT	-26.786145	ALFHTT	-5.7593207	NADD	0.0
YHT	-0.25107198	YVT	-364.62295	ALFVTT	3.4341392	LADD	0.0
ZHT	1164.1342	ZVT	0.74287805E-1	AAB1F	8.8762639		

WEIGHT	19920.0	FSCG	360.20000	V	1.0E-2	PSITRZ	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1112.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.25553810	A1S	-1.3575885	IMT	33.290533	XA	40.402886
LNGSTK	2.9533516	B1S	1.5097903	IS	-3.0	XB	39.564128
COLSTK	21.179518	THETA0	21.179518	TH75MR	11.099518	XC	66.071998
PEDAL	21.402943	THETTR	34.242365	TH75TR	20.742365	XP	22.269526
XAIN	4.8402886	XBIN	3.9564128	XCIN	6.6071989	XPIN	1.2025222
XBACTP	46.332857	XBACTI	4.6332857	RSTR.	0.0	PSTR	0.0
VXB	0.16836478E-1	THETAB	4.9177089	AA0F	4.3210444	QSTR	0.0
VYB	0.0	PHIB	-3.0202926	AA1F	-1.7407551	RSTR	0.0
VZB	0.14486977E-2	BETAWF	0.0	BB1F	-1.4489151	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-0.1515352	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.31647082E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.16558319	MMITR	0.0
ALFWF	-13.192597	EKTX	-0.28396965	EKWFX	0.79995393E-5	LMITR	0.0
CHITPP	-1.7167535	EKTZ	0.24629859	EKWFZ	0.11099360E-3	QMITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	0.27410134E-6	KQMT	0.87177979	KQVT	0.84852813	YITR	0.0
MUXS	0.23295309E-4	CTSIG	0.10857772	CTOT	-20.002235	ZITR	0.0
MUYS	0.0	CHSIG	-0.39705213E-2	DTOT	26.605217	LITR	0.0
MUZS	0.78002058E-6	CQMSIG	0.94317270E-6	TTR	1511.0063	MITR	0.0
LAMBMR	-0.60203924E-1	NZ	0.99481136	HPMR	2200.0252	NITR	0.0
DWSHMR	0.60204703E-1	VC	0.12781202E-3	KTRBLK	0.79599999	AXP	2.7039336
XMR	1647.3065	HBAR	-677.99169	VXBDOT	0.26265116E-1	AYP	1.7131147
YMR	-403.23115	JBAR	403.23115	VYBDOT	0.24909088E-1	AZP	-32.000749
ZMR	-10470.001	TBAR	10540.332	VZBDOT	-0.10057403E-2	VXP	0.16836478E-1
LMR	-8674.4494	LBARM	-3921.2577	PDOT	0.99208373E-4	VYP	0.0
MMR	15046.545	MBARM	-4022.8445	QDOT	0.10910559E-3	VZP	0.14486977E-2
NMR	44009.009	GBAR	44945.001	RDOT	0.35009088E-3	RSTR.	0.0
XWF	-0.50075121E-5	XT	4.5328712	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-0.34983517E-6	YTR	1419.9870	BTR	0.0
ZWF	0.71784045E-5	ZT	5.8760797	ZTR	-516.83403	MADD	0.0
LWF	0.0	LT	-0.77660327E-6	LTR	8674.2758	XADD	0.0
MWF	-0.14340742E-3	MT	171.23305	MTR	-16013.240	YADD	0.0
NWF	0.0	NT	0.97380813E-5	NTR	-43995.932	ZADD	0.0
XMT	4.5328713	XVT	-0.79060544E-7	ALFMTT	-7.6754474	NADD	0.0
YMT	0.0	YVT	-0.34983517E-6	ALFVTT	0.0	LADD	0.0
ZMT	5.8760797	ZVT	0.68644252E-7	AABB1F	2.2648584		

UTTAS(S76) 1-21-77 30-AUG-77 RUN 58.

WEIGHT	19900.0	PSCG	360.20000	V	40.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KPR	15.0	PASCNT	980.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-2.1110964	A1S	-3.0744286	IMT	31.566110	XA	36.000647
LNGSTK	4.2005735	B1S	4.4329725	IS	-3.0	XB	34.046029
COLSTK	19.024095	THETA0	19.024095	TH75MR	9.7440953	XC	58.405596
PEDAL	14.592477	THETTR	25.006352	TH75TR	12.306352	XP	41.149706
XAIN	3.6000047	XBIN	3.4046029	XCIN	5.8405596	XPIN	2.2220263
XBACTP	41.459425	XBACTI	4.1459425	RSTR.	0.0	PSTR	0.0
VXB	67.387914	THETAB	4.5089364	AA0F	4.3226695	QSTR	0.0
VYB	0.0	PHIB	-1.6793969	AA1F	-2.2761907	RSTR	0.0
VZB	5.3143565	BETAWF	0.0	BB1F	-0.34030161	TITR	0.0
P	0.0	GAML	0.0	AA0L	-6.2976210	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.20227094	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.63421005E-1	MMITR	0.0
ALFWF	-10.001514	EKTX	0.97010370	EKWFX	0.69254940	LMITR	0.0
CHITPP	62.503007	EKTZ	2.0276011	EKWFZ	1.0349923	QMITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.9519971	KQHT	0.93491045	KGVT	0.64052013	YITR	0.0
MUXS	0.93204727E-1	CTSIG	0.11159621	LTOT	-31.003029	ZITR	0.0
MUYS	0.0	CMSIG	-0.36558843E-2	DTOT	30.001272	LITR	0.0
MUZS	0.24552929E-2	CQMSIG	0.94352743E-6	TTR	1162.0247	MITR	0.0
LAMBMR	-0.43902022E-1	NZ	0.99640052	HPMR	1726.5724	NITR	0.0
DWSHMR	0.46357315E-1	VC	0.14213562	KTRBLK	1.0	AXP	2.5326545
XMR	1620.6327	HBAR	-624.26542	VXBDOT	0.29740892E-2	AYP	0.91491784
YMR	-545.09594	JBAR	545.09594	VYBDOT	-0.26240901E-1	AZP	-32.058373
ZMR	-10995.496	TBAR	19055.761	VZBDOT	0.52673799E-3	VXP	67.387914
LMR	-6650.2716	LBARM	-1509.1656	PDOT	0.79995752E-3	VYP	0.0
MMR	15605.066	MBARM	-6076.9490	QDOT	-0.20757559E-3	VZP	5.3143565
NMR	33704.524	QBAR	34737.701	RDOT	0.10929961E-3	RSTR.	0.0
XWF	-150.67015	XT	32.400064	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-5.5032770	YTR	1092.7790	BTR	4.0
ZWF	380.20732	ZT	65.735507	ZTR	-397.73983	MADD	0.0
LWF	0.0	LT	-12.422793	LTR	6675.4602	XADD	0.0
MWF	-5192.1344	MT	1980.9407	MTR	-12323.305	YADD	0.0
NWF	0.0	NT	155.77345	NTR	-33857.937	ZADD	0.0
XHT	33.004160	XVT	-1.3962956	ALFMTT	-1.9713439	NADD	0.0
YHT	0.0	YVT	-5.5032770	ALFVTT	0.0	LADD	0.0
ZHT	64.010140	ZVT	0.92536787	AAB01F	2.3214805		

UTTAS(ST6)   1-21-77   30-AUG-77   RUN 59.

WEIGHT	19900.0	PSCG	360.00000	V	60.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSB	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1553.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	GSTR.	0.0
LATSTK	-1.1190111	A1S	-1.9965146	IHT	23.267560	XA	43.226102
LNGSTK	4.9373501	B1S	5.0766767	IS	-3.0	XB	32.555504
COLSTK	10.999452	THETA0	10.999452	TH75MR	8.9194520	XC	53.246576
PEDAL	13.753000	THETTR	23.976342	TH75TR	10.476342	XP	43.476933
XAIN	4.3006100	XBIN	3.2553504	XCIN	5.3246576	XPIN	2.3476933
XBACTP	37.114212	XBACTI	3.7114212	RSTR.	0.0	PSTR	0.0
VXB	101.25935	THETAB	2.9332453	AA0F	4.1689293	QSTR	0.0
VYB	16.670724	PHIB	0.0	AA1F	-1.4526029	PSTR	0.0
VZB	5.1087104	BETAMF	7.7441039	BB1F	-0.24434441E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.2321924	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.23417631	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.12539813E-1	MHITR	0.0
ALFWF	-0.7549014	EKTX	1.2497072	EKWFX	0.84975286	LHITR	0.0
CHITPP	75.432079	EKTZ	1.9558445	EKWFZ	1.0145679	QHITR	0.0
EKTR	0.0	EPSWT	0.52744103	SIGHT	1.2202688	XITR	0.0
QWF	13.400374	KQHT	0.87177979	KQVT	0.76237277	YITR	0.0
MUXS	0.13985086	CTSIG	0.11011010	LTOT	-8.4598218	ZITR	0.0
MUYS	0.22995796E-1	CMSIG	-0.21122924E-2	DTOT	27.337912	LITR	0.0
MUZS	-0.10297539E-3	CQMSIG	0.90996988E-6	TTR	935.73670	MITR	0.0
LAMBMR	-0.32508347E-1	NZ	0.99857626	HPMR	1370.6982	NITR	0.0
DWSHMR	0.32425371E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.6417881
XMR	1344.2279	MBAR	-360.68732	VXBDOT	-0.44624523E-2	AYP	0.77761646E-2
YMR	-505.44589	JBAR	505.44589	VYBDOT	0.61995100E-2	AZP	-32.127060
ZMR	-10757.271	TBAR	10803.377	VZBDOT	0.11806330E-2	VXP	101.25935
LMR	-5737.8062	LBARM	-1261.9444	PDOT	0.15021422E-2	VYP	16.670724
MMR	10998.354	MBARM	-3940.9609	QDOT	-0.40187109E-4	VZP	5.1887104
NMR	26900.184	QBAR	27900.964	RDOT	0.45749456E-3	RSTR.	0.0
XWF	-311.31201	XT	-58.815627	XTR	0.0	PSIDMG	0.0
YWF	-275.75850	YT	-95.436484	YTR	882.31002	BTR	4.0
ZWF	162.67463	ZT	-145.81911	ZTR	-322.40726	MADD	0.0
LWF	573.31927	LT	-285.43988	LTR	5377.5502	XADD	0.0
MWF	-4865.0771	MT	-4207.6632	MTR	-9927.2849	YADD	0.0
NWF	-2334.7992	NT	2663.6319	NTR	-27274.938	ZADD	0.0
XMT	-63.153215	XVT	4.3375800	ALFHTT	3.5482947	NADD	0.0
YMT	-2.1249618	YVT	-93.311442	ALFVTT	10.635836	LADD	0.0
ZMT	-144.28142	ZVT	-1.5376859	AABB1F	1.4520286		

WEIGHT	19900.0	FSCG	300.00000	V	80.0	PSITRE	0.0
IX	6200.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17920000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NBSB	5.0	TWSTTR	-10.0	WLVT	273.0
KFW	15.0	PASCNT	1190.0	WLMT	234.0	FSVT	695.0
FSMT	700.42000	BMT	45.0	SVT	32.322220	QSTR.	0.0
LATSTK	-1.0330148	A1S	-1.9074250	IMT	11.031011	XA	43.543657
LNGSTK	6.2627490	B1S	6.9193602	IS	-3.0	XB	27.870144
COLSTK	10.969427	THETAB	10.969427	TH75MR	0.0594270	XC	53.058920
PEDAL	11.060372	THETTR	22.055684	TH75TR	0.5556848	XP	45.701562
XAIN	4.3543657	XBIN	2.7870144	XCIN	5.3255919	XPIN	2.0298159
XBACTP	31.006071	XBACTI	3.1006071	RSTR.	0.0	PSTR	0.0
VXB	134.97611	THETAB	3.2209899	AA0F	4.1237846	QSTR	0.0
VYB	14.049055	PHIB	0.0	AA1F	-2.4435116	RSTR	0.0
VZB	7.6105747	BETAWF	5.2933397	BB1F	0.93327041E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.7915974	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.20220095	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.60913994E-1	MMITR	0.0
ALFWF	-4.0302703	EKTX	1.3921097	EKWFX	0.92104202	LMITR	0.0
CHITPP	82.141695	EKTZ	1.0047230	EKWFZ	1.2296583	QMITR	0.0
EKTG	0.0	EPSWT	0.50293339	SIGWT	0.91637412	XITR	0.0
QWF	20.306020	KQMT	0.07177979	KGVT	2.01019298	YITR	0.0
MUXB	0.10606744	CTSIG	0.11034024	LTOT	-1.7070262	ZITR	0.0
MUYB	0.19300530E-1	CHSIG	-0.34019237E-2	DTOT	24.756023	LITR	0.0
MUZB	0.73090030E-3	CQMSIG	0.90211595E-6	TTR	909.93546	MITR	0.0
LAMBMR	-0.24252223E-1	NZ	0.99046366	HPMR	1329.3904	NITR	0.0
DWSMMR	0.24991104E-1	VC	0.0	KTRBLK	1.0	AXP	1.0121601
XMR	1566.1062	HBAR	-500.92004	VXBDOT	-0.17459512E-2	AYP	-0.04056562E-2
YMR	-459.42177	JBAR	459.42177	VYBDOT	-0.59045469E-2	AZP	-32.126245
ZMR	-10703.610	TBAR	10841.296	VZBDOT	-0.38497142E-2	VXP	134.97611
LMR	-5470.7069	LBARM	-1349.1199	PDOT	-0.25620300E-2	VYP	14.049055
MMR	15266.629	MBARM	-6591.0728	QDOT	-0.24476364E-3	VZP	7.6105747
NMR	25603.032	QBAR	26551.249	RDOT	-0.05760748E-3	RSTR.	0.0
XWF	-474.97789	XT	-17.677112	XTR	0.0	PSIDMG	0.0
YWF	-201.03292	YT	-117.37152	YTR	855.12321	BTR	4.0
ZWF	69.922106	ZT	-33.743096	ZTR	-311.24000	MADD	0.0
LWF	490.00909	LT	-257.01745	LTR	5223.6917	XADD	0.0
MWF	-4464.2285	MT	-969.32766	MTR	-9643.2525	YADD	0.0
NWF	-2491.3548	NT	3275.1273	NTR	-26494.567	ZADD	0.0
XHT	-15.962419	XVT	-1.7146923	ALFHTT	0.61077900	NADD	0.0
YHT	-1.0259091	YVT	-116.34562	ALFVTT	6.1305936	LADD	0.0
ZHT	-34.059252	ZVT	0.31535472	AABB1F	2.4452932		

UTTAS(070)   1-21-77   30-AUG-77   RUN 01.

WEIGHT	19900.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	6200.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41500.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMH	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBBS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSBS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1175.0	WLHT	234.0	FSVT	895.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	GSTR.	0.0
LATSTK	-1.1101300	A1S	-2.0364713	IHT	2.1130075	XA	43.201902
LNGSTK	0.5963733	B1S	9.6520767	IS	-3.0	XB	19.624122
COLSTK	19.473597	THETAS	19.473597	TH75MR	9.3935972	XC	56.209902
PEDAL	10.959439	THETTR	21.751756	TH75TR	0.2517561	XP	51.221335
XAIN	0.3061601	XBIN	1.9624122	XCIN	5.6209902	XPIN	2.7650021
XBACTP	21.604106	XBACTI	2.1604106	RSTW.	0.0	PSTR	0.0
VXB	160.59067	THETAB	4.0071015	AA0P	4.1174163	QSTR	0.0
VYB	13.676693	PHIB	0.0	AA1P	-4.2902531	RSTR	0.0
VZB	11.011597	BETANF	4.2915110	BB1P	0.11102172	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.2224270	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.30234792	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.21642114	MHITR	0.0
ALFWF	-0.94473457	EKTX	1.3310193	EKWFX	0.92520045	LHITR	0.0
CHITPP	81.938497	EKTZ	1.7013254	EKWFZ	1.2002614	GHITR	0.0
EKTR	0.0	EPSHT	0.49291510	SIGHT	0.75530590	XITR	0.0
QWF	29.220384	KQHT	0.07177979	KGVT	0.02025057	YITR	0.0
MUXS	0.23320292	CTSIG	0.11127990	LTOT	1.5029220	ZITR	0.0
MUYS	0.10065794E-1	CHSIG	-0.61498629E-2	DTOT	24.630322	LITR	0.0
MUZS	0.48982137E-2	COMSIG	0.89072594E-6	TTR	1023.6450	MITR	0.0
LAMBMR	-0.16107631E-1	NZ	0.99700522	HPMH	1415.3057	NITR	0.0
DWBMMR	0.20205844E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.2051700
XMR	2041.1202	HBAR	-1049.9914	VXBDOT	0.10256593E-1	AYP	-0.99519513E-3
YMR	-405.02426	JBAR	405.02426	VYBDOT	-0.31930300E-2	AZP	-32.077569
ZMR	-10085.179	TBAR	16967.597	VZBDOT	0.17376592E-1	VXP	160.59067
LMR	-5950.0469	LBARM	-1672.4700	PDOT	0.51296169E-3	VYP	13.676693
MMR	7926.4675	MBARM	-11064.585	QDOT	0.98179172E-3	VZP	11.011597
NMR	27910.704	QBAR	20000.702	RDOT	-0.51158202E-3	RSTR.	0.0
XWF	-692.11721	XT	-4.2170311	XTR	0.0	PSIDMG	0.0
YWF	-320.54386	YT	-150.71235	YTR	983.10013	BTR	0.0
ZWF	-34.014433	ZT	230.92310	ZTR	-343.29234	MADD	0.0
LWF	531.13401	LT	-330.35132	LTR	5701.6417	XADD	0.0
MWF	-3009.9150	MT	6560.6102	MTR	-12636.340	YADD	0.0
NWF	-2914.0157	NT	4205.5646	NTR	-29223.050	ZADD	0.0
XHT	1.4734065	XVT	-5.6904377	ALFHTT	-2.9165212	NADD	0.0
YHT	-1.5334375	YVT	-149.17091	ALFVTT	4.0779091	LADD	0.0
ZHT	230.42227	ZVT	0.50891092	AABB1P	4.0915759		

WEIGHT	19900.0	FSCG	300.00000	V	120.0	PSITR2	0.0
IX	6200.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBBS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.3045179	AIS	-2.4150013	IMT	0.62765984	XA	41.340765
LNGSTK	9.6900124	BIS	11.042434	IS	-3.0	XB	15.756045
COLSTK	20.493240	THETAB	20.493240	TH75MR	12.013240	XC	62.502750
PEDAL	10.961510	THETTH	22.977390	TH75TR	9.4773981	XP	51.215595
XAIN	4.1340765	XBIN	1.5790045	XCIN	0.2902750	XPIN	2.7055722
XBACTP	15.007390	XBACTI	1.5007309	RSTM.	0.0	PSTM	0.0
VXB	202.54562	THETAB	2.7003063	AA2F	4.2023371	QSTM	0.0
VYB	14.149726	PHIB	0.0	AA1F	-4.0715623	RSTM	0.0
VZB	9.8650348	BETAWF	3.7017001	BB1F	0.93369974E-1	TITR	0.0
P	0.0	GAMC	0.0	AA2L	-6.3916177	MITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.41020190	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.22299142	MMITR	0.0
ALFWF	-0.66060257	EKTX	1.3004059	EKWFX	0.92933133	LMITR	0.0
CHITPP	82.256250	EKTZ	1.6933623	EKWFZ	1.0077437	QMITR	0.0
EKTR	0.0	EPSWT	0.40701720	SIGWT	0.66597921	XITR	0.0
QWF	40.233450	KGWT	0.07177979	FWVT	0.83252972	YITR	0.0
MUXS	0.27970141	CTSIG	0.11110723	LTOT	1.7102607	ZITR	0.0
MUYS	0.19510301E-1	CHSIG	-0.53930125E-2	DTOT	24.336339	LITR	0.0
MUZS	-0.10336617E-2	CQHSIG	0.69063249E-6	TTR	1236.2972	MITR	0.0
LAMBMR	-0.17961316E-1	NZ	0.99027042	HPMR	1736.5300	NITR	0.0
DWBMMR	0.16927654E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.5010070
XMR	1912.6374	MBAR	-920.09073	VXBDOT	0.22628476E-1	AYP	-0.61027552E-2
YMR	-569.00059	JBAR	569.00059	VYBDOT	0.67739072E-5	AZP	-32.105350
ZMR	-10900.206	TBAR	10975.600	VZBDOT	0.21726296E-1	VXP	202.54562
LMR	-7317.0650	LBARM	-2060.0013	PDOT	0.63103010E-3	VYP	14.149726
MMR	8021.1462	MBARM	-10961.204	QDOT	0.25372441E-2	VZP	9.8650348
NMR	34247.604	QBAR	35347.756	RDOT	0.29517194E-2	FSTR.	0.0
XWF	-955.67642	XT	-15.016522	XTR	0.0	PSIDMG	0.0
YWF	-390.59221	YT	-193.34095	YTR	1161.9257	STP	4.0
ZWF	-57.640030	ZT	329.34900	ZTR	-422.07002	MADD	0.0
LWF	641.42127	LT	-424.34927	LTR	7097.2459	XADD	0.0
MWF	-4970.1575	MT	9356.4669	MTR	-13121.947	YADD	0.0
NWF	-3534.2230	NT	5395.2462	NTR	-35997.235	ZADD	0.0
XMT	-4.2131445	XVT	-10.003375	ALFHTT	-3.1245297	NADD	0.0
YMT	-1.0006642	YVT	-191.54029	ALFVTT	4.0257215	LADD	0.0
ZMT	320.64125	ZVT	0.7005287	AABB1F	4.2726320		

UTTAS(876)   1-21-77   30-AUG-77   RUN 63.

WEIGHT	19900.0	FSCG	360.20000	V	140.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NBSS	5.0	TWSITR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1385.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	USTR.	0.0
LATSTK	-2.3444002	A1S	-3.5769680	IMT	0.13150816	XA	35.340998
LNGSTK	11.349644	B1S	12.091189	IS	-3.0	XB	9.8952504
COLSTK	22.445901	THETA0	22.445901	TH75MR	12.365901	XC	74.700004
PEDAL	12.309947	THETTR	26.669028	TH75TR	13.169028	XP	47.477414
XAIN	3.5346998	XBIN	0.98952504	XCIN	7.4700004	XPIN	2.5637136
XBACTF	7.9264269	XBACTI	0.79264269	RSTR.	0.0	PSTR	0.0
VXB	236.52902	THETA0	1.1266072	AA0F	4.0484243	QSTR	0.0
VYB	16.427580	PHI0	0.0	AA1F	-3.7829475	RSTR	0.0
VZB	4.6517224	BETAWF	3.0133645	BB1F	-0.38941431E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-9.2924014	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.56586473	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13324137	MMITR	0.0
ALFWF	-1.3885831	EKTX	1.3303330	EKWFX	0.92332778	LMITR	0.0
CHITPP	81.794446	EKTZ	1.7154517	EKWFZ	1.0082055	OMITR	0.0
EKTR	0.0	EPSWT	0.48813364	SIGWT	0.67115214	XITR	0.0
QWF	53.336045	KQWT	0.87177979	KUVT	0.83035720	YITR	0.0
MUXS	0.32613428	CTSIG	0.11158524	LTOT	0.85868585	ZITR	0.0
MUYS	0.22660401E-1	CMSIG	-0.38757338E-2	DTOT	24.342672	LITR	0.0
MUZS	-0.10667037E-1	COMSIG	0.88366675E-6	TTR	1775.6771	MITR	0.0
LAMBMR	-0.25225756E-1	NZ	0.99880311	HPMR	2494.7129	NITR	0.0
DWSMMR	0.14557918E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	0.63530176
XMR	1657.3061	MBAR	-661.80612	VXBDOT	0.16449117E-2	AYP	0.59066301E-1
YMR	-855.89859	JBAR	855.89859	VYBDOT	0.30837888E-1	AZP	-32.130489
ZMR	-18978.019	TBAR	19848.227	VZBDOT	0.28857012E-1	VXP	236.52902
LMR	-10388.103	LBARM	-2625.8698	PDOT	0.18041396E-1	VYP	16.427580
MMR	11302.333	MBARM	-10132.747	QDOT	-0.12125580E-2	VZP	4.6517224
NMR	49156.030	QBAR	50780.612	RDOT	0.1770[illegible]E-2	RSTR.	0.0
XWF	-1266.4914	XT	-14.555285	XTR	0.0	PSIDMG	0.0
YWF	-532.04071	YT	-261.68013	YTR	1660.7147	BTR	0.0
ZWF	-15.016087	ZT	535.24574	ZTR	-607.36367	MADD	0.0
LWF	877.33373	LT	-573.84739	LTR	10193.678	XADD	0.0
MWF	-7733.3088	MT	15207.016	MTR	-10818.151	YADD	0.0
NWF	-4729.0422	NT	7302.0374	NTR	-51702.344	ZADD	0.0
XMT	0.27168893	XVT	-14.826974	ALFMTT	-3.8844797	NADD	0.0
YMT	-2.5818172	YVT	-259.89831	ALFVTT	3.9760942	LADD	0.0
ZMT	534.20471	ZVT	1.8410298	AABB1F	3.7831479		

UTTAS(876) 1-21-77 30-AUG-77 RUN 64.

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NOSS	4.0	THSIMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSITR	-10.0	WLVT	273.0
KFR	15.0	PASLNT	1763.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-3.2541365	A1S	-4.6457941	IHT	0.40489064	XA	29.661646
LNGSTK	12.372227	B1S	14.034737	IS	-3.0	XB	6.2818797
COLSTK	23.991239	THETAB	23.991239	TH75MR	13.911239	XC	84.445245
PEDAL	13.482227	THETTR	29.695714	TH75TR	16.195714	XP	44.227578
XAIN	2.9661646	XBIN	0.02818797	XCIN	0.8445245	XPIN	2.3882271
XBACTP	3.1116540	XBACTI	0.31116540	RBTR.	0.0	PSTR	0.0
VXB	253.49279	THETAB	-0.18067369	AAEP	4.0499009	QSTR	0.0
VYB	10.527200	PHIB	0.0	AA1P	-3.4747281	RSTR	0.0
VZB	-0.47191284	BETAWP	4.0320177	BB1P	-0.20435743	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-11.613063	HITH	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.60545818	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.10719403	MHITR	0.0
ALFWF	-2.2758512	EKTX	1.3611159	EKWFX	0.91545580	LHITR	0.0
CHITPP	81.188915	EKTZ	1.7420750	EKWFZ	1.0088110	QHITR	0.0
EKTR	0.0	EPSWT	0.49032017	SIGWT	0.70963513	XITR	0.0
QWF	60.712982	KQHT	0.87177979	KQVT	0.82930323	YITR	0.0
MUXS	0.34913854	CTSIG	0.11210684	LTOT	-0.11021448	ZITR	0.0
MUYS	0.25556641E-1	CHSIG	-0.22867932E-2	DTOT	24.386403	LITR	0.0
MUZS	-0.10949031E-1	CQMSIG	0.80398985E-6	TTR	2203.1753	MITR	0.0
LAMBMR	-0.32600691E-1	NZ	1.0014097	HPMH	3111.4443	NITR	0.0
DWSHMR	0.13650060E-1	VC	0.44703483E-6	KTRBLK	1.0	AXP	-0.66102769E-1
XMR	1392.4684	MBAR	-390.40443	VXBDOT	-0.21247699E-1	AYP	0.51956719E-1
YMR	-1096.0567	JBAR	1096.0567	VYBDOT	0.35627136E-1	AZP	-32.236250
ZMR	-19108.438	TBAR	19156.615	VZBDOT	-0.46273110E-1	VXP	253.49279
LMR	-12966.237	LBARM	-3114.3240	PDOT	0.14589205E-1	VYP	10.527200
MMR	13936.775	MBARM	-9294.2806	QDOT	-0.92496052E-2	VZP	-0.47191284
NMR	61270.418	QBAR	63334.360	RDOT	0.40480134E-2	RBTR.	0.0
XWF	-1437.7017	XT	-2.9063543	XTR	0.0	PSIDMG	0.0
YWF	-641.36970	YT	-311.09039	YTR	2070.4615	BTR	4.0
ZWF	64.434434	ZT	602.60174	ZTR	-753.58783	MADD	0.0
LWF	1083.9990	LT	-683.34276	LTR	12647.829	XADD	0.0
MWF	-10374.683	MT	19481.987	MTR	-23340.662	YADD	0.0
NWF	-5702.4628	NT	8783.4371	NTR	-64149.799	ZADD	0.0
XHT	12.928517	XVT	-15.834871	ALFMTT	-4.3625053	NADD	0.0
YHT	-3.2711310	YVT	-300.62725	ALFVTT	4.1053680	LADD	0.0
ZHT	681.33880	ZVT	1.3429416	AABB1F	3.4807323		

[illegible] 1-21-77 52-AUG-77 RUN 37.

HEIGHT	[illegible]	PSCS	347.2	V	1.2E-2	PSITPE	2.2
IX	[illegible]	ALCS	246.23999	DELS	-5.2	XSTP.	2.2
IY	[illegible]	HMU	2.1752222E-2	PSOUND	1277.2	YSTP.	2.2
IZ	[illegible]	TIME	2.2222222E-1	DELSM	2.2	ZSTP.	2.2
[illegible]	[illegible]	ASSS	4.2	THSTHE	-10.2	PST.	2.2
[illegible]	[illegible]	SSSS	5.2	THSITH	-15.2	ALT	273.2
[illegible]	[illegible]	PASCNT	995.2	ALMT	234.2	PSYT	995.2
PSMT	[illegible]	SMT	-5.2	SMT	32.322222	GSTP.	2.2
LATSTP	7.2253?515	AIS	-2.5523712?	IHT	33.756443	XA	51.397213
LNGSTP	[illegible]	BIS	-2.2523615	IS	-3.2	XB	55.524122
[illegible]	21.217139	THETAE	21.217139	TH/SMH	11.137139	XC	57.187123
PSUAL	[illegible]	THELTH	33.437777	TH/STH	22.437777	XF	23.239248
XAIT	5.1597?215	XPIN	5.3524121	XCIN	5.7127123	XPIN	1.2988799
XSALT	[illegible]	XSALTI	5.6764732	PST.	2.2	PSTP	2.2
VXP	2.1689572?E-1	THETAB	7.94922951	AAZP	4.3416792	SSTP	2.2
VYP	2.2	PHIS	-2.4285132	AAIP	2.4286642	PSTP	2.2
VZP	[illegible]	BETAMP	2.2	BCIP	-2.98695237	TITP	2.2
P	2.2	SAML	2.2	AAYL	-5.2151346	HITP	2.2
Q	2.2	[illegible]	7.2	BAIL	-7.13939502	JITP	2.2
R	2.2	PSIDOT	2.2	BEIL	-7.13325262	[illegible]	2.2
ALPHA	[illegible]	EATX	-7.51774795	EXARX	2.1952122E-1	L-ITP	2.2
[illegible]	[illegible]	EATZ	2.59222222	EXARZ	2.27224142	G-ITP	2.2
[illegible]	2.2	EPSMT	2.44999999	SIGMT	2.2	XITP	2.2
[illegible]	[illegible]	[illegible]	1.2	[illegible]	2.4452015	YITP	2.2
[illegible]	[illegible]	CFSIG	-4.1292142	[illegible]	-72.2	ZITP	2.2
[illegible]	2.2	C-SIG	2.4252465E-2	[illegible]	45.279949	LITP	2.2
[illegible]	[illegible]	[illegible]	2.94767574E-6	[illegible]	1405.4432	MITP	2.2
[illegible]	[illegible]	[illegible]	7.99642766	[illegible]	2222.2274	NITP	2.2
[illegible]	[illegible]	[illegible]	2.155201322E-4	[illegible]	2.74599999	AXP	2.52659238
[illegible]	[illegible]	[illegible]	724.13539	XFDOT	-2.26459947E-1	AYP	1.3964211
[illegible]	[illegible]	[illegible]	554.71552	YFDOT	2.3521276?E-1	AZP	-32.136579
[illegible]	[illegible]	[illegible]	16516.?76	ZFDOT	-2.1529219?E-3	VXP	2.16895729E-1
[illegible]	[illegible]	[illegible]	-2779.5373	[illegible]	2.7456462?E-3	VYP	2.2
[illegible]	[illegible]	[illegible]	6644.2391	[illegible]	-2.1597214?E-3	VZP	2.27929358E-3
[illegible]	[illegible]	[illegible]	45232.?19	[illegible]	2.2455?268E-3	PST.	2.2
[illegible]	[illegible]	XT	42.5232?9	XT?	2.2	[illegible]	7.2
[illegible]	2.2	YT	-7.3457322E-6	[illegible]	1394.2842	ATP	4.2
[illegible]	[illegible]	ZT	62.912236	ZT?	-527.42617	[illegible]	2.2
[illegible]	2.2	LT	-2.77557541E-6	LT?	2516.2435	XADD	2.2
[illegible]	[illegible]	MT	1235.4452	MT?	-16279.281	YADD	2.2
[illegible]	2.2	NT	2.1212?22E-4	NT?	-44726.872	ZADD	2.2
[illegible]	[illegible]	[illegible]	-2.5272534?E-7	[illegible]	-19.366663	[illegible]	2.2
[illegible]	2.2	[illegible]	-7.3457322E-6	[illegible]	2.2	LADD	2.2
[illegible]	[illegible]	[illegible]	7.93?5559?E-7	[illegible]	2.6215424		

WEIGHT	19900.0	FSCG	347.0	V	80.0	PSITR2	0.0
IX	[illegible]	WLCG	246.24999	DELS	-5.0	VXSTR.	0.0
IY	41557.0	RHO	0.17522822E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	[illegible]	TIME	[illegible]E-1	DELSHR	0.0	VZSTR.	0.0
OMEGMR	[illegible]	NBSS	4.0	TASIMR	-10.0	PSTR.	0.0
OMEGTR	[illegible]	NSSS	5.0	TASITR	-10.0	HLVT	273.0
KFR	[illegible]	PASSNT	1175.0	WGHT	238.0	FSVT	595.0
FSWT	[illegible]	SWT	45.0	SVT	32.540000	QSTR.	0.0
LATSTK	-1.[illegible]	A1S	-2.8146750	IMT	31.845142	XA	39.685192
LNGSTK	0.33[illegible]	B1S	0.7498186	IS	-3.0	XB	48.124654
COLSTK	19.[illegible]	THETAC	19.855199	THTSTR	9.7531989	XC	58.857893
PEDAL	14.[illegible]	THETTR	25.557871	THTSTR	12.057871	XP	41.866178
XAIN	5.9[illegible]	XBIN	4.8128858	YCIN	5.8457893	XPIN	0.2527187
XBALTR	53.3[illegible]	XBALTI	5.3367962	PSTR.	0.0	PSTR	0.0
VXB	67.[illegible]	THETAS	0.74558331	AA0P	4.5483558	QSTR	0.0
VYB	0.0	PHIS	-1.0053453	AA1P	1.7048656	RSTR	0.0
VZB	0.[illegible]	DETAHP	0.0	BB1P	-7.28951715E-1	TITR	0.0
P	0.0	GAMC	0.0	AACL	-6.1587994	HITR	0.0
Q	0.0	DMGRAT	1.0	XX1L	0.15279235	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.22240727	MHITR	0.0
ALPHAF	-22.[illegible]	EKTX	0.85539866	ERRRX	0.72945120	LHITR	0.0
CHITPP	65.[illegible]	EKTZ	0.1460881	ERRRZ	1.0323965	QHITR	0.0
EKIN	0.0	EFSWT	0.44999999	SIGAT	0.0	XITR	0.0
GAM	[illegible]	KUWT	0.97526720	RUWT	0.64852613	YITR	0.0
MUXS	0.[illegible]	CTSIG	0.11249783	CTOT	-35.257110	ZITR	0.0
MUYS	0.0	CHSIG	0.41934617E-2	DTOT	31.769236	LITR	0.0
MUZS	-0.[illegible]	CQMSIG	0.94913591E-6	TIP	1123.9325	MITR	0.0
LAMBDA	-0.[illegible]E-1	VI	0.99935150	HPRR	1577.0851	NITR	0.0
DWBRMR	0.[illegible]E-1	VC	0.17792885E-1	KTRSLR	1.0	AXP	0.41968614
XMR	[illegible]	HRAM	718.26218	VXBDOT	0.13029152E-2	AYP	0.76132681
YMR	-853.[illegible]	DRAM	935.22866	VYBDOT	-0.1[illegible]E-1	AZP	-32.150242
ZMR	-19[illegible]	TRAM	19229.718	VZBDOT	-0.21606373E-2	VXP	67.586582
LMR	[illegible]	LRAM	-535.25170	PDOT	0.7070[illegible]E-3	VYP	0.0
MMR	[illegible]	MRAM	4872.3666	QDOT	0.1021[illegible]E-3	VZP	0.8795227
NMR	33727.1[illegible]	NRAM	38181.589	RDOT	0.8535[illegible]E-4	RSTR.	0.0
XHP	-14[illegible]	XT	104.69511	XTP	0.0	PSIDMG	0.0
YHP	0.0	YT	-5.3773952	YTP	1859.2298	STP	0.0
ZHP	382.[illegible]	ZT	182.81265	ZTP	-384.43692	WADD	0.0
LHP	0.0	LT	-12.669722	LTP	8852.1900	XADD	0.0
MHP	-33[illegible]	MT	4942.2951	MTP	-12334.017	YADD	0.0
NHP	0.0	NT	181.78662	NTP	-33857.188	ZADD	0.0
XHT	1[illegible]	XVT	-1.3394317	ALPHTT	-4.7575053	NADD	0.0
YHT	0.0	YVT	-5.3773952	BETATT	0.0	CADD	0.0
ZHT	181.[illegible]	ZVT	1.0025935	AASSIP	1.7251116		

WEIGHT	19900.0	PSCG	347.0	V	97.0	PSITR2	0.0
IX	5250.0	WLCG	246.24999	DELS	-5.0	VXSTR.	0.0
IY	41547.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	35224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TASTMR	-10.0	PSTR.	0.0
OMEGTR	124.[illegible]	NSSS	5.0	TASITR	-10.0	WLVT	273.0
RPM	15.0	PASCNT	1490.0	XCMT	250.0	FSVT	695.0
FSHT	700.00[illegible]	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.95700111	A1S	-1.0453000	IHT	23.237046	XA	40.016993
LNGSTK	1.0737016	B1S	1.5531361	IS	-5.0	XB	45.499075
COLSTK	19.111911	THETA0	19.111911	TH75MR	9.0319117	XL	53.949448
PEDAL	13.353[illegible]54	THETTR	23.726333	TH75TR	16.226333	XP	44.544134
XAIT	0.07104[illegible]3	XBIN	4.5499075	XCIN	5.3949440	XPIN	0.4053207
XBALTP	45.713[illegible]	XMALTI	4.8715288	WSTR.	0.0	PSTR	0.0
VXB	101.3[illegible]	THETAB	-0.59125395	AAEF	4.2220164	QSTR	0.0
VYB	13.1[illegible]2144	PHIB	0.0	AAIF	2.2775127	RSTR	0.0
VZB	-1.0[illegible]2573	BETAMF	6.0729702	BBIF	0.1502155	TITR	0.0
P	0.0	GAML	0.0	AAEL	-5.0267072	HITR	0.0
Q	0.0	DMGRAT	1.0	AAIL	0.12535485	JITR	0.0
R	0.0	PSIDOT	0.0	BBIL	-0.26782445	HHITR	0.0
ALPHAF	-11.011509	EKTX	1.1076593	EKWFX	0.05358145	LHITR	0.0
CHITPP	75.3[illegible]13[illegible]	EKTZ	2.0767600	EKWFZ	1.0141996	UHITR	0.0
EKIW	0.0	EPSWT	0.51012975	SIGWT	1.0130407	XITR	0.0
OHF	13.[illegible]	KGWT	0.87177975	KGVT	0.60085761	YITR	0.0
MUXS	0.13957[illegible]	CTSIG	0.1115[illegible]70	LIFT	-14.55317[illegible]	ZITR	0.0
MUYS	0.1[illegible]E-1	CMSIG	0.52410[illegible]1E-2	DRAG	27.483703	LITR	0.0
MUZS	-0.[illegible]E-2	CQMSIG	0.92155744E-6	TTR	955.06465	MITR	0.0
LAMSMR	-0.[illegible]E-1	NZ	0.99976788	HPMR	1375.6956	NITR	0.0
DASMMR	0.[illegible]E-1	VL	0.17801593E-5	KTHBLK	1.0	AXP	-0.33170226
XMR	1[illegible]2.[illegible]519	HBAR	894.94025	VXBDOT	0.31737447E-3	AYP	0.14852685E-2
YMR	-5[illegible]	JBAR	576.95247	VYBDOT	0.34249857E-2	AZP	-32.166774
ZMR	-1[illegible]	TBAR	19039.000	VZBDOT	0.24024190E-2	VXP	101.38403
LMR	-5[illegible]	LBARR	-775.59976	PDOT	0.47644359E-4	VYP	13.192194
MMR	1534[illegible]	MBARR	6555.0056	QDOT	-0.72440602E-4	VZP	-1.0462573
NMR	27[illegible]	QBAR	20002.555	RDOT	0.55675563E-3	WSTR.	0.0
XHF	-3[illegible]5.55[illegible]	XT	6.0705116	XTR	0.0	PSIDMG	0.0
YHF	-[illegible]	YT	-79.925635	YTR	879.49059	BTR	4.0
ZHF	2[illegible]	ZT	29.103502	ZTR	-320.10905	HADD	0.0
LHF	[illegible]	LT	-174.55598	LTR	5372.5453	XADD	0.0
MHF	-5[illegible]	MT	650.66375	MTR	-10270.165	YADD	0.0
NHF	-1[illegible].5[illegible]	NT	2310.3256	NTR	-20216.492	ZADD	0.0
XHT	5.1[illegible]	XVT	0.67179645	ALFHT1	-2.05220812	NADD	0.0
YHT	-1[illegible]	YVT	-70.917165	ALFVTT	7.9946541	EADD	0.0
ZHT	[illegible]	ZVT	-0.30609774	AAEBIF	2.2051128		

UTTAS(5/8)   1-21-77   30-AUG-77   RUN 4E.

HEIGHT	19900.0	FSCG	347.0	T	57.0	PSITR2	0.0
IX	5000.0	ALCG	246.24999	DELS	-5.0	VXSTR.	0.0
IY	41557.0	RHO	0.17577222E-2	VSOUND	1277.0	VYSTR.	0.0
IZ	35000.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.14999	MASS	4.0	TASTMR	-10.0	PSTM.	0.0
OMEGTR	124.00000	MASS	5.0	TASTTR	-10.0	WLVT	273.0
RFM	15.0	PASCNT	1175.0	XLMT	234.0	FSVT	695.0
FSMT	140.00000	SMT	45.0	SVT	32.300000	GSTM.	0.0
LATSTK	-0.71956175	AIS	-1.5122503	IMT	11.251759	XA	44.253239
LNGSTK	0.7314939	BIS	3.6425106	IS	-3.0	XB	39.639696
COLSTK	19.120230	THETA0	19.120238	TH75MR	9.2482388	XC	54.251494
PEDAL	11.04 030	THETTR	20.016719	TH75TR	0.7187192	XP	46.777988
XAIN	4.4253239	XBIN	3.9639696	XCIN	5.4251498	XPIN	0.6339385
XHALTH	41.575372	XBALTI	4.1576370	PSIM.	0.0	PSTM	0.0
VXB	155.14567	THETAB	-0.11440363	AAZP	0.1964517	QSTM	0.0
VYB	11.772997	PHIB	0.0	AA1P	1.1022429	RSTM	0.0
VZB	-0.27411350	BETAMF	4.4226425	BB1P	0.26417237	TITR	0.0
P	0.0	GAMC	0.0	AAZL	-4.6591069	HITR	0.0
Q	0.0	DMSPAT	1.0	AA1L	0.17169225	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.18564618	MHITR	0.0
ALPHAF	-7.0371587	EKTX	1.2438032	EKAPX	0.92467228	LHITR	0.0
CHIMF	50.554035	EKTZ	1.9311425	EKAPZ	1.2296427	WHITR	0.0
BETAF	0.0	EPSMT	0.49462442	SIGMT	0.77482957	XITW	0.0
QMF	20.376000	KAMT	0.47117979	KAVT	0.86751463	YITW	0.0
MUXS	0.15527123	CTSIG	0.11224525	LTCT	-0.51940519	ZITW	0.0
MUYS	0.10239013E-1	CHSIG	0.54738303E-2	LTCT	25.265444	LITW	0.0
MUZS	-0.10151935E-1	CQHSIG	0.91397717E-6	TTR	919.52963	MITW	0.0
LAMBDA	-0.5037705E-1	VL	1.0000957	HPMR	1324.3103	NITR	0.0
DASTMR	0.0000341EE-1	VC	0.44703463E-6	KTMBLK	1.0	AXP	-0.37892827E-1
XMR	417.70001	HBAR	593.17442	VXBDOT	0.64546799E-2	AYP	0.12553381E-2
YMR	-525.00786	JBAR	523.02900	VYBDOT	-7.10023534E-2	AZP	-32.175993
ZMR	-1919.070	TBAR	19156.598	VZBDOT	-0.37394282E-2	VXP	155.19587
LMR	-5511.4159	LBARM	-976.27512	PDOT	0.12233388E-2	VYP	11.772997
MMR	12059.003	MBARM	3251.6615	QDOT	0.12575805E-3	VZP	-0.27811368
NMR	2400.0.000	QBAR	29956.986	RDOT	-0.29689997E-3	RSTM.	0.0
XHF	-470.00433	XT	33.752755	XTR	0.0	PSIDMG	0.0
YHF	-237.00204	YT	-173.11289	YTR	000.13945	BTR	0.0
ZHF	174.03000	ZT	007.52714	ZTR	-314.52164	MADD	0.0
LHF	455.10429	LT	-025.05116	LTR	5275.7092	XADD	0.0
MHF	-6515.0400	MT	5989.0771	MTR	-12292.922	YADD	0.0
NHF	-1032.0303	NT	0990.0000	NTR	-27724.473	ZADD	0.0
XHT	36.010007	XWT	-0.5593146	ALFHTT	-3.4236917	NADD	0.0
YHT	-1.3377593	YWT	-101.75500	ALFVTT	5.2020000	LADD	0.0
ZHT	199.77459	ZWT	0.7474659	AABSIP	1.1329677		

UTTAS(S/R) 1-21-77 30-AUG-77 RUN 41.

WEIGHT	19922.0	FSCG	347.0	V	100.0	PSITR2	0.0
IX	6265.0	WLCG	245.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.17520002E-2	VSOUND	1677.0	VYSTR.	0.0
IZ	38224.0	TIME	0.27230227E-1	DELSMR	2.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSIMR	-18.0	PSTR.	0.0
OMEGTR	124.82822	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
RPR	15.0	PASLMT	1175.0	WLHI	234.0	FSVT	695.0
FSMT	770.42822	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTR	-1.0331297	AIS	-1.9995255	IHT	2.3259662	XA	43.417939
LNGSTR	5.5352991	BIS	6.6033522	IS	-3.0	XB	30.369967
COLSTR	19.568114	THETAO	19.568114	TH75MR	9.5081146	XC	57.425719
PEDAL	11.191851	THETTR	22.217569	TH75TR	8.7175691	XP	58.377891
XAIN	4.5417436	XMIN	3.0369967	XLIN	5.7425718	XPIN	2.7310919
XBALTP	51.235597	XBALTI	3.1230087	RSTR.	0.0	PSTR	0.0
VXB	166.75912	THETAB	0.90619758	AAZF	4.2761687	QSTR	0.0
VYB	12.245129	PHIB	0.0	AAIF	-0.67740221	RSTR	0.0
VZB	2.6785118	BETAWF	3.0240656	BBIF	2.25865763	TITR	0.0
P	0.0	GAMC	0.0	AREL	-5.3852880	HITR	0.0
Q	0.0	OMGRAT	1.0	AAIL	0.25963867	JITR	0.0
R	0.0	PSIDOT	0.0	BBIL	-0.72750962E-1	MHITR	0.0
ALPHAF	-5.6767624	ERTX	1.1055377	ERWFX	0.92643224	LHITR	0.2
CHITPP	82.167696	ERTZ	1.0003656	ERWFZ	1.0278129	QHITR	0.0
ERTR	0.0	EPS-T	4.4682U865	SIGMT	0.67247236	XITR	0.0
QPP	24.319802	RGMT	0.67177979	RGVT	0.6542106	YITR	0.0
MUXS	0.03247669	CTSIG	7.11354645	LTOT	-2.1237926	ZITR	0.0
MUYS	0.1[illegible]E-1	CHSIG	0.32518460E-3	DTOT	24.344172	LITR	0.0
MUZS	-0.053[illegible]E-2	CQMSIG	0.91829828E-6	TTR	1026.9014	MITR	0.0
LAMDMR	-0.29149491E-1	NZ	1.0001624	HPMR	1455.9350	NITR	0.0
DASHMR	0.22836014E-1	VL	0.0	KTPBLK	1.0	AXP	0.51856606
XMR	959.23235	MBAR	55.527352	VXBDOT	0.70063066E-2	AYP	0.14639041E-1
YMR	-529.06361	JBAR	529.65361	VYBDOT	0.46915560E-2	AZP	-32.178581
ZMR	-19345.365	TBAR	19366.777	VZBDOT	-0.15000371E-1	VXP	168.95912
LMR	-6299.7422	LBARM	-1393.0398	PDOT	0.43390192E-2	VYP	12.245109
MMR	2476.4463	MBARM	-1523.4155	QDOT	-0.32392207E-3	VZP	2.6785118
NMR	29235.571	QBAR	29655.984	RDOT	-0.58657462E-3	RSTR.	0.0
XMF	-694.55?49	XT	42.566379	XTR	0.0	PSIUMG	0.0
YMF	-295.49239	YT	-139.59368	YTR	966.92297	BTR	4.0
ZMF	129.95253	ZT	514.56559	ZTR	-351.93186	MADD	0.0
LMF	524.99654	LT	-383.36962	LTR	5986.6429	XADD	0.0
MMF	-5545.2459	MT	15216.273	MTR	-11291.147	YADD	0.0
NMF	-2512.9577	NT	4649.2175	NTR	-31222.111	ZADD	0.0
XHT	49.565447	XVT	-6.9900679	ALFHTT	-6.5673709	NADD	0.0
YHT	-2.2234911	YVT	-137.37019	ALFVTT	4.1827898	LADD	0.0
ZHT	515.41230	ZVT	1.8954194	AABBIF	0.72243463		

WEIGHT	19922.0	FSCG	347.0	V	120.0	PSITR2	0.0
IX	6855.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41547.0	RHO	0.17522222E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38824.0	TIME	0.20000000E-1	DELSPR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	T-STMR	-18.0	PSTR.	0.0
OMEGTR	124.00000	NSSS	5.0	T-SITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1135.0	WLMT	234.0	FSVT	695.0
FSMT	[illegible]	SMT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-1.4977558	AIS	-2.5132694	IMT	1.2766842	XA	42.951663
LNGSTK	6.945[illegible]	BIS	0.2144290	IS	-3.0	XB	25.453221
COLSTK	22.825[illegible]	THETA2	22.825085	TH75MR	10.745085	XC	64.656286
PEDAL	11.[illegible]	THETTR	24.021162	TH75TR	10.321162	XP	49.425714
XAIN	4.7751663	XBIN	2.5453021	XCIN	6.6656256	XPIN	2.6689191
XBALIP	24.452[illegible]	XMACTI	2.4452987	PSTR.	0.0	PSTR	0.0
VXB	222.79141	THETAB	-0.15895963	AAOP	4.1724615	QSTR	0.0
VYB	12.981214	PHIB	0.0	AAIP	-0.64269478	RSTR	0.0
VZB	-0.56257614	BETAWF	3.4541454	BBIP	0.24876217	TITR	0.0
P	0.0	GAML	0.0	AAOL	-6.9524549	HITR	0.0
Q	0.0	DTGRAT	1.0	AAIL	0.33989516	JITR	0.0
R	0.0	PSIDOT	0.0	BBIL	-0.12120230	MHITR	0.0
ALFWF	-3.5134558	EKTX	1.1573391	EKWFX	0.95482297	LHITR	0.0
CHITPP	82.0[illegible]	EKTZ	1.7462312	EKWFZ	1.2073229	QHITR	0.0
EKTR	0.0	EPSAT	0.48634145	SIGMT	0.62742962	XITR	0.0
QWF	42.3[illegible]	KJMT	0.87177479	KAVT	0.83228383	YITR	0.0
MUXS	0.27928719	CTSIG	0.11383148	LTOT	-1.6349211	ZITR	0.0
MUYS	0.17[illegible]E-1	CMSIG	0.67321668E-3	DTOT	24.270828	LITR	0.0
MUZS	-0.15[illegible]E-1	CQMSIG	0.91274525E-6	TTR	1326.5277	MITR	0.0
LAMBMR	-0.52[illegible]E-1	VZ	0.99966224	HPMR	1672.2061	NITR	0.0
UBSMPR	0.17[illegible]E-1	VC	0.89406967E-6	KTRBLK	1.0	AXP	-0.91419871E-1
XMR	[illegible].35555	MBAR	149.12728	VXBDOT	-0.26122282E-2	AYP	0.85163046E-2
YMR	-432.17987	JBAR	892.17927	VYBDOT	0.82777339E-2	AZP	-32.145651
ZMR	-19417.173	TBAR	19437.448	VZBDOT	0.25826564E-1	VXP	222.79141
LMR	-1854.8275	LBARM	-1725.8166	PDOT	0.24647387E-2	VYP	12.981214
MMR	3149.5898	MBARM	-1454.9552	QDOT	-0.68596762E-3	VZP	-0.56257614
NMR	37815.288	NBAR	38129.343	RDOT	0.14292228E-2	RSTR.	0.0
XWF	-957.[illegible]	XT	34.626512	XTR	0.0	PSIDMG	0.0
YWF	-365.94277	YT	-152.63815	YTR	1248.6279	BTR	4.0
ZWF	153.5[illegible]	ZT	667.35555	ZTR	-453.73381	MADD	0.0
LWF	646.9[illegible]	LT	-396.17517	LTR	7613.2343	XADD	0.0
MWF	-5344.5552	MT	19726.931	MTR	-14557.292	YADD	0.0
NWF	-2559.6732	NT	5298.2274	NTR	-39995.755	ZADD	0.0
XHT	46.465[illegible]	XVT	-11.839577	ALFHTT	-6.3624955	NADD	0.0
YHT	-2.3551577	YVT	-187.12300	ALFVTT	3.6696527	LADD	0.0
ZHT	565.6[illegible]	ZVT	1.5348972	AABBIF	0.66934413		

UTTAS(S78) 1-21-77 30-AUG-77 RUN 43.

WEIGHT	19970.7	FSCG	347.0	V	140.0	PSITR2	0.0
IX	5660.	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41537.0	RHO	0.17524E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36624.	TIME	0.2000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.213999	MSSS	0.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.5[illegible]	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASLNT	1999.0	WLHT	234.0	FSVT	695.0
FSHT	7[illegible].4[illegible]	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTR	-2.7581320	A1S	-4.0756229	IHT	0.37411122	XA	32.761559
LNGSTR	6.972.712	B1S	10.351942	IS	-5.0	XB	15.296567
COLSTR	23.270994	THE1AS	23.270994	TH75MR	13.190994	XC	79.943715
PEDAL	13.740333	THE1TR	29.095726	TH75TR	15.595726	XP	43.494862
XAIN	3.2751339	XBIN	1.8296967	XCIN	7.9943714	XPIN	2.3400014
XMALIP	13.137434	XBACTI	1.5137934	WSTR.	0.0	PSTR	0.0
VXB	235.47162	THETAB	-2.0129969	AA2F	4.1422473	QSTR	0.0
VYB	15.905700	PHIB	0.0	AA1F	-0.93329763E-1	RSTR	0.0
VZB	-5.3032667	BETAWF	3.6781859	BB1F	0.15471119	TITR	0.0
P	0.0	GAML	0.0	AA2L	-13.848777	HITR	0.0
Q	0.0	CPGRAT	1.0	AA1L	0.32552800	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.25766365	MHITR	0.0
ALFXF	-4.4491519	EKTX	1.1563659	EKAPX	0.92966569	LHITR	0.0
CHITPP	82.24[illegible]	EKTZ	1.8246193	EKAPZ	1.2677218	GHITR	0.0
EKIR	0.0	EPSWT	0.45678185	SIGWT	0.64736071	XITR	0.0
QWF	53.71[illegible]	KGMT	0.87177979	KGVT	0.83127812	YITR	0.0
MUXS	0.3251199	CTSIG	0.11451871	ETOT	-2.0677000	ZITR	0.0
MUYS	0.2193775E-1	CHSIG	0.2092534E-2	DTOT	24.315637	LITR	0.0
MUZS	-0.2852179E-1	CQHSIG	0.9041459E-6	TIP	2837.1549	MITR	0.0
LAMBMR	-0.4539914E-1	NZ	0.99775724	HPMR	2887.7357	NITR	0.0
DWSHMR	0.1491232E-1	VL	0.14325114E-4	KTRBLK	1.0	AXP	-1.1365540
XMR	537.1[illegible]	HBAR	493.91862	VXBDOT	-0.14851285E-2	AYP	-0.22811069E-1
YMR	-1139.5[illegible]	JBAR	1140.5443	VYBDOT	-0.1514230E-1	AZP	-32.092144
ZMR	-19572.327	TBAR	19554.796	VZBDOT	0.5437911E-1	VXP	235.47162
LMR	-1212[illegible]	LBARH	-2175.7737	PDOT	-0.5638538E-2	VYP	15.903708
MMR	5667.[illegible]	MBARH	119.15399	QDOT	0.3451694E-2	VZP	-6.3032867
NMR	5[illegible].471	QBAR	50706.706	RDOT	-0.7053935E-3	RSTR.	0.0
XMF	-1239.7[illegible]	XT	59.776267	XTR	0.0	PSIDMG	0.0
YMF	-517.52377	YT	-257.32725	YTR	1914.4416	BTR	4.0
ZMF	25[illegible].52545	ZT	951.22232	ZTR	-696.82119	MADD	0.0
LMF	935.9[illegible]	LT	-560.38442	LTR	11694.751	XADD	0.0
MMF	-1243[illegible].451	MT	28122.697	MTR	-22355.764	YADD	0.0
NMF	-4[illegible].[illegible]35	NT	7464.1754	NTR	-61421.674	ZADD	0.0
XMT	74.13[illegible]	XVT	-15.354928	ALFHTI	-5.9464516	NADD	0.0
YMT	-3.7[illegible]275	YVT	-253.50322	ALFVTI	3.4453707	LADD	0.0
ZMT	949.11339	ZVT	2.1089311	AABBIF	7.1806717		

UTTAS(576) 1-21-77 30-AUG-77 RUN 88.

WEIGHT	19982.7	FSCG	387.0	V	150.0	PSITR2	0.0
IX	5866.	WLCG	240.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17560202E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	50624.2	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.719999	MUSS	0.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.56[illegible]	KSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	FASCNT	1658.0	WLMT	234.0	FSVT	695.0
FSMT	[illegible]	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-3.7985975	AIS	-5.2918559	IMT	1.3839624	XA	26.258765
LNGSTK	12.[illegible]	BIS	11.550548	IS	-5.0	XB	14.492593
COLSTK	24.977655	THETA0	24.977655	TH75MR	14.097655	XC	98.610344
PEDAL	15.[illegible]	THETTR	32.458122	TH75TR	18.958122	XP	39.851028
XAIN	2.6258766	XBIN	1.4492593	XCIN	9.2510344	XPIN	2.1518995
XBALTR	10.147273	AMALTI	1.0147273	RSTR.	0.0	PSTR	0.0
VXB	253.07556	THETAB	-5.2469815	AAOP	4.1476484	QSTR	0.0
VYB	18.333142	PHIB	0.0	AAIP	0.31062699	RSTR	0.0
VZB	-14.358170	BETAWP	5.9775133	BBIP	-0.22931325E-1	TITR	0.0
P	0.0	GAMC	0.0	AAOL	-13.566325	MITR	0.0
Q	0.0	OMGRAT	1.0	AAIL	0.60988172	JITR	0.0
R	0.0	PSIDOT	0.0	BBIL	-0.31057310	MMITR	0.0
ALFAF	-5.35[illegible]23	EKTX	1.1764102	EKMFX	0.92332440	LMITR	0.0
CHITPP	81.7[illegible]	EKTZ	1.0561852	EKMFZ	1.0082058	GMITR	0.0
EKTR	0.0	FPSAT	0.46977513	SIGMT	0.72004233	XITR	0.0
GPP	61.[illegible]	KUMT	0.67177979	KUVT	0.82956600	YITR	0.0
MUXS	0.58755359	CTSIG	0.11519265	CTOT	-3.9698987	ZITR	0.0
MUYS	0.25[illegible]955E-1	CHSIG	0.45465565E-2	DTOT	24.479120	LITR	0.0
MUZS	-0.59[illegible]05842E-1	CQMSIG	0.90532482E-6	TTR	2511.0185	MITR	0.0
LAMMMR	-0.32[illegible]15514E-1	NZ	0.99729054	HPMR	3569.0692	NITR	0.0
DWSHMR	0.139[illegible]6471E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	-1.8186186
XMR	254.10154	MBAR	776.35536	VXBDOT	-0.31804379E-2	AYP	0.36811293E-1
YMR	-1598.0011	JBAR	1398.0011	VYBDOT	0.21980302E-1	AZP	-32.897089
ZMR	-1958[illegible].021	TMAR	19669.875	VZBDOT	0.33305478E-1	VXP	253.07556
LMR	-14855.775	LBARM	-2711.6122	PDOT	0.10885233E-1	VYP	18.333142
MMR	9715.7218	MBARM	1313.1650	QDOT	-0.4695[illegible]772E-2	VZP	-14.358170
NMR	71597.855	QBAR	72649.448	RDOT	0.12421789E-2	RSTR.	0.0
XAF	-1025.6947	XT	66.487341	XTR	0.0	PSIDMG	0.0
YAF	-535.45739	YT	-311.77508	YTR	2399.7012	BTR	4.0
ZAF	576.90542	ZT	1127.6578	ZTR	-858.88443	MADD	0.0
LAF	1181.[illegible]	LT	-678.28881	LTR	18415.073	XADD	0.0
MAF	-15574.552	MT	33351.201	MTR	-27555.875	YADD	0.0
NAF	-5[illegible]9.3244	NT	9243.5408	NTR	-75703.998	ZADD	0.0
XMT	124.51239	XVT	-16.023254	ALFMTT	-7.2566332	NADD	0.0
YMT	-0.7559857	YVT	-377.01989	ALFVTT	4.1380079	LADD	0.0
ZMT	1125.2229	ZVT	2.4548524	AABB1F	0.31147226		

UTTFS(S76)   1-21-77   30-AUG-77   RUN 2.

WEIGHT	19957.7	FSCG	388.20000	V	1.2E-2	PSITR2	0.0
IX	[illegible]	WLCG	251.10040	DELS	-5.0	VXSTR.	0.0
IY	35996.0	WHC	0.23780007E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37[illegible]	TIME	0.20020000E-1	DELSHR	0.0	VZSTR.	0.0
OMEGMR	27.[illegible]9499	NBSS	4.0	THSIMR	-18.0	PSTR.	0.0
OMEGTR	1[illegible]	NSSS	5.0	TASITR	-18.0	WLVT	273.0
RPM	15.0	PASCNT	1135.0	WLMT	259.0	FSVT	595.0
FSMT	[illegible]	SWT	45.0	SVT	32.320000	GSTR.	0.0
LATSTK	-7.15929720	A1S	-0.92000656	IMT	27.290883	XA	49.084393
LNGSTK	3.5[illegible]2	B1S	2.1154998	IS	-3.0	XB	38.124348
COLSTK	17.[illegible]121	THETA0	17.079121	TH75MR	7.5991214	XC	44.994510
PEDAL	17.5[illegible]151	THETTR	25.981097	TH75TR	12.481097	XP	33.526968
XAIL	4.9[illegible]5	XBIR	3.8124388	XCIR	4.4994512	XPIR	1.8108092
XBACIR	45.[illegible]1261	XBALTI	4.5021261	RSTR.	0.0	PSTR	0.0
VXB	0.1[illegible]27317E-1	THETAB.	5.2598785	AAEF	3.2896011	QSTR	0.0
VYB	0.0	PHIB	-2.7326385	AAIF	-2.2552100	RSTR	0.0
VZB	0.1[illegible]E-2	BETAMF	0.0	BBIF	-1.0057510	TITR	0.0
P	0.0	GAMC	0.0	AAOL	-5.6189705	HITR	0.0
Q	0.0	UMGRAT	1.0	AAIL	0.52661220E-2	JITR	0.0
R	0.0	PSIDOT	4.0	BBIL	0.14226903	MHITR	0.0
ALPHAF	-9.2[illegible]	EMTX	-9.24967266	EMWPX	0.79995393E-5	LHITR	0.0
CHIIPF	-2.2[illegible]1	EMTZ	2.20085843	EMWPZ	0.11099366E-3	UHITR	0.0
EMIF	0.0	EPSMT	0.44999999	SIGMT	0.0	XITR	0.0
WMF	0.3[illegible]E-6	KGMT	0.87177979	KGVT	0.84852813	YITR	0.0
MUXS	0.[illegible]E-4	CTSIG	0.657424[illegible]E-1	LTOT	-11.551354	ZITR	0.0
MUYS	0.0	CMSIG	-0.27775164E-2	DTOT	24.792000	LITR	0.0
MUZS	0.[illegible]E-6	CQMSIG	0.52841109E-6	TTR	1052.2357	MITR	0.0
LAMHMR	-0.[illegible]E-1	NZ	0.99456065	HPMR	1532.5362	NITR	0.0
DMSHMR	0.55[illegible]E-1	VC	0.11127325E-3	KIRBLK	0.79599999	AXP	2.9740439
XMR	1441.[illegible]	MEAR	-644.43438	VXBDOT	0.27260085E-1	AYP	1.5572633
YMR	-233.[illegible]	JBAR	233.64007	VYBDOT	0.27720773E-1	AZP	-31.998624
ZMR	-1[illegible]	TBAR	15254.456	VZBDOT	-0.96667795E-3	VXP	0.16827617E-1
LMR	-5[illegible].7432	LBARM	-2765.7113	PDOT	0.61366714E-3	VYP	0.0
MMR	1[illegible].521	MBARM	-6254.1218	QDOT	0.12666567E-4	VZP	0.15477666E-2
NMR	3[illegible].199	NBAR	31195.102	RDOT	-0.43989517E-3	RSTR.	0.0
XMF	-0.[illegible]1134374E-5	XT	3.5061437	XTR	0.0	PSIOMG	0.0
YMF	0.0	YT	-0.47442932E-6	YTR	988.85166	BTR	4.0
ZMF	0.[illegible]E-5	ZT	5.6144230	ZTR	-359.91326	MADD	0.0
LMF	0.0	LT	-0.56563349E-6	LTR	5645.8579	XADD	0.0
MMF	-0.144[illegible]E-3	MT	164.29916	MTR	-11151.312	YADD	0.0
NMF	0.0	NT	0.13236578E-4	NTR	-39637.920	ZADD	0.0
XMT	3.5[illegible]	XVT	-0.11282429E-6	ALFMTT	-11.566839	NADD	0.0
YMT	0.0	YVT	-0.47442932E-6	ALFVTT	0.0	EADD	0.0
ZMT	5.614[illegible]	ZVT	0.69286974E-7	AABSIF	2.4693134		

UTTAS(370) 1-21-77 30-AUG-77 RUN 3.

WEIGHT	10457.0	FSCG	362.27222	V	82.0	PSITR2	0.0
IX	5969.0	ALCW	251.16000	DELS	-5.0	VXSTR.	0.0
IY	34945.0	RHO	0.23780812E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	31225.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	21.219999	NCSS	0.0	TASTMR	-10.0	PSTR.	0.0
OMEGTR	124.60000	N3SS	5.0	TASITR	-10.0	ALVT	273.0
KPP	15.0	PASLRT	925.0	ALMT	238.0	PSVT	695.0
PSMT	[illegible]	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.3566025	A1S	-1.9502679	IHT	25.585977	XA	41.495857
LNGSTK	3.4041675	B1S	3.4674397	IS	-3.0	XB	36.218418
COLSTK	15.046399	THETA2	16.046399	TH75MR	5.9683991	XC	34.822495
PEDAL	12.761454	THETTR	19.443539	TH75TR	5.9435391	XP	46.225714
XAIR	4.1675857	XBIN	3.6218817	XCIN	3.4822495	XPIN	2.4981236
XGALTP	42.54486[illegible]	XGALTI	4.2544600	RSTR.	0.0	PSTR	0.0
VXG	67.455448	THETAB	3.7557955	AA2P	3.1762742	QSTR	0.0
VYG	0.0	PHIB	-1.4756654	AA1P	-2.1663592	RSTR	0.0
VZG	4.4262722	BETAWF	0.0	BB1P	-0.59771222E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.9862449	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	2.17669637	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.93842663E-1	PHITR	0.0
ALPHAF	-11.566717	EKTX	1.1675613	EKWFX	0.79944235	LHITR	0.0
CHITPP	76.530215	EKTZ	2.6463326	EKWFZ	1.0191417	QHITR	0.0
EKTP	0.0	EPSAT	0.44999999	SIGKT	0.0	XITR	0.0
SKP	5.6575636	KUHT	0.87177979	KUVT	0.34852815	YITR	0.0
MUXS	0.95233623E-1	CTSIG	0.67221225E-1	LTOT	-17.253286	ZITR	0.0
MUYS	0.0	CHSIG	-0.18675725E-2	DIOT	25.877366	LITR	0.0
MUZS	0.12256821E-2	CQMSIG	0.51217517E-6	TIR	754.55961	MITR	0.0
LAMGMR	-0.20046747E-1	NZ	0.99735812	HPMR	1099.3961	NITR	0.0
DASHMR	0.27519553E-1	VC	0.12394696	KTROLR	1.0	AXP	2.0928487
XMW	1232.5677	MGAR	-419.41687	VXBDOT	-0.15528226E-1	AYP	0.79384147
YMW	-314.89821	JBAR	314.89821	VYBDOT	-0.29882578E-1	AZP	-32.889373
ZMW	-15535.051	TBAR	15551.121	VZBDOT	0.36882779E-2	VXP	67.455448
LMW	-8783.8177	LBARM	-1112.2229	PDOT	-0.16112553E-2	VYP	0.0
MMW	15105.731	MBARM	-5810.4886	QDOT	0.12012366E-3	VZP	4.4262722
NMW	21764.111	NBAR	22378.531	RDOT	0.88359572E-8	PSTR.	0.0
XWP	-196.51351	XT	-21.866461	XTR	0.0	PSIDMG	0.0
YWP	0.0	YT	-7.3862252	YTR	709.12823	BTR	0.0
ZWP	195.00695	ZT	-26.945643	ZTR	-258.29487	MADD	0.0
LWP	0.0	LT	-13.841173	LTR	4249.2752	XADD	0.0
MWP	-4315.0[illegible]76	MT	-786.75449	MTR	-7996.6145	YADD	0.0
NWP	0.0	NT	211.59931	NTR	-21978.475	ZADD	0.0
XMT	-19.753944	XVT	-2.6524667	ALFMTT	1.0222573	NADD	0.0
YMT	0.0	YVT	-7.3882252	ALFVTT	0.0	LADD	0.0
ZMT	-21.921425	ZVT	0.96178252	AABOIF	2.1671856		

UTTAS(57E)   1-21-77   30-AUG-77   RUN 4.

WEIGHT	16052.0	FSCG	360.00000	V	50.0	PSITR2	0.0
IX	[illegible]	XLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39976.0	RHO	0.23780092E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	[illegible]	TIME	[illegible]E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	HMSS	4.0	THSTMR	-15.0	PSTR.	0.0
OMEGTR	124.[illegible]	HDSS	5.0	THSITR	-18.0	FLVT	273.0
KFR	15.0	PASCNT	1259.0	FLMT	239.0	FSVT	695.0
FSMT	720.[illegible]	SHT	45.0	SWT	32.500000	CSTR.	0.0
LATSTK	-2.[illegible]	AIS	-1.5047210	IMT	13.171345	XA	45.135000
LNGSTK	4.5[illegible]	BIS	4.2515214	IS	-3.0	XB	32.936058
COLSTK	15.59[illegible]	THETAB	15.590250	TH75MR	5.5120502	XC	31.937064
PEDAL	12.55[illegible]	THETTR	10.102711	TH75TR	5.4027711	XP	45.970317
XAIT	4.5135288	XBIN	3.2950058	XCIN	3.1937858	XPIN	2.4027645
XBALTP	37.49[illegible]	XBALTI	3.7499247	HSTR.	0.0	PSTR	0.0
VXM	101.25875	THETAB	2.9397062	AASF	3.7677013	QSTR	0.0
VYB	12.055866	PHIS	0.0	AAIF	-2.1679210	RSTR	0.0
VZB	5.2001326	BETAMF	5.9998015	BBIF	0.6355[illegible]E-1	TITR	0.0
P	0.0	GAMC	0.0	AACL	-3.4947243	HITR	0.0
Q	0.0	OMGMAT	1.0	AA1L	0.15352002	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	2.94552657E-1	MHITR	0.0
ALPHAF	-4.7459691	EKTX	1.3793500	EKMFX	0.69500680	LHITR	0.0
CHIPPF	79.549719	EKTZ	1.6209431	EKMFZ	1.0120502	UHITR	0.0
EKTH	0.0	EPSMT	0.5[illegible]	SIGMT	1.7039505	XITR	0.0
QAF	15.555722	RGHT	0.87177979	KLVT	0.52250520	YITR	0.0
MUXS	0.1399[illegible]	LTSIG	0.6651009[illegible]E-1	LTOT	-0.5500[illegible]	ZITR	0.0
MUYS	0.1[illegible]E-1	CHSIG	-0.15017818E-2	DTOT	25.179760	LITR	0.0
MUZS	-0.1970017[illegible]E-3	CUMSIG	0.4927671[illegible]E-6	TTR	673.55122	MITR	0.0
LAMBMR	-0.2034[illegible]E-1	NZ	0.99960250	MPMR	961.73641	NITR	0.0
DWSHMR	0.2[illegible]E-1	VC	4.35762706E-5	FIMBLK	1.0	AXP	1.5561742
XMM	1191.4252	MSAM	-390.02960	XBDOT	2.50376030E-2	AYP	-0.25259223E-3
YMM	-284.[illegible]	JOAM	254.91900	YBDOT	-0.17120200E-2	AZP	-32.129216
ZMM	-15591.[illegible]	TSAM	15454.011	ZBDOT	0.14657184E-3	VXP	101.25875
LMM	-3900.[illegible]	LSAMM	-1354.0027	PDOT	0.92949299E-3	VYP	12.055806
MMM	12[illegible].552	MSAMM	-5946.9216	QDOT	-0.22457346E-3	VZP	5.2001326
NMM	19[illegible].042	NOAM	19576.426	RDOT	-0.72147613E-4	RSTR.	0.0
XMF	-357.[illegible]27	XT	-22.626727	XTR	0.0	PSIDMG	0.0
YMF	-247.5577[illegible]	YT	-49.303162	YTR	652.95755	BTR	4.0
ZMF	71.555[illegible]	ZT	-55.505524	ZTR	-230.38927	RADD	0.0
LMF	552.02227	LT	-177.50525	LTR	3613.5364	XADD	0.0
MMF	-3735.5109	MT	-1891.6750	MTR	-7138.2213	YADD	0.0
NMF	-2155.2452	NT	2771.0529	NTR	-19612.064	ZADD	0.0
XMT	-22.530546	XVT	0.20141062E-1	ALFMTI	1.4593222	MADD	0.0
YMT	-1.1215[illegible]	YVT	-46.151617	ALFVTI	7.2056055	LADD	0.0
ZMT	-65.517459	ZVT	-0.3053573[illegible]E-2	AAOSIF	2.1688534		

WEIGHT	1645[illegible]	FSCG	360.22000	V	80.0	PSITR2	0.0
IX	552[illegible]	WLCG	251.14042	DELS	-5.0	VXSTR.	0.0
IY	399[illegible]	RHO	0.23768020E-2	VSOUND	1117.4	VYSTR.	0.0
IZ	3[illegible]	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.[illegible]	NBSS	4.0	TASIMR	-18.0	PSTR.	0.0
OMEGTR	124.[illegible]	NSSS	5.0	TASITR	-18.0	WLVT	273.0
RPM	15.[illegible]	PASCNT	1272.0	WLMT	234.0	FSVT	695.0
FSMT	[illegible]	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.55[illegible]77	A1S	-1.1795918	IHT	-2.47452734	XA	46.857332
LNGSTK	7.5[illegible]	B1S	7.4464132	IS	-3.0	XB	22.852208
COLSTK	15.5[illegible]15	THETA0	15.807816	TH75MR	5.7278163	XC	33.298852
PEDAL	11.[illegible]439	THETTR	16.176310	TH75TR	4.6763108	XP	48.938402
XAIN	4.[illegible]57332	XDIN	2.2852208	XCIN	3.3298852	XPIN	2.6426058
XDACTP	22.513447	XDACTI	2.4613447	RSTR.	0.0	PSTR	0.0
VXB	134.74965	THETA0	4.5362799	AA0P	3.2893986	QSTR	0.0
VYB	11.2[illegible]	PHI0	0.0	AA1P	-4.9284211	RSTR	0.0
VZB	1[illegible].9[illegible]049	BETAMP	4.4339275	BB1P	0.10289245	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.6530279	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1C	0.22148371	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.28619546	MHITR	0.0
ALPHAF	-2.17034058	EKTX	1.3641686	EKMPX	0.92513126	LHITR	0.0
CHITPP	61.[illegible]3	EKTZ	1.0735235	EKMPZ	1.0000000	QHITR	0.0
EKTR	0.0	EPSMT	0.4933927	SIGMT	0.78037124	XITR	0.0
QMF	25.212561	KGMT	0.87177979	KGVT	0.82736242	YITR	0.0
MUXS	0.18659931	CTSIG	0.67400003E-1	CTOT	2.9619525	ZITR	0.0
MUYS	0.13529955E-1	CHSIG	-0.45096864E-2	DTOT	24.466785	LITR	0.0
MUZS	0.5524785[illegible]E-2	CQMSIG	0.49825111E-6	TTR	715.97646	MITR	0.0
LAMBMR	-2.1023475[illegible]E-1	NZ	0.99696325	HPMR	994.75765	NITR	0.0
DASHMR	0.1355555[illegible]1E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.6018130
XMR	1004.4172	MBAR	-1046.3982	VXBDOT	0.11368523E-2	AYP	-0.46706579E-2
YMR	-247.[illegible]3535	JBAR	247.00545	VYBDOT	-0.25491845E-2	AZP	-32.077085
ZMR	-15[illegible].155	TBAR	15659.578	VZBDOT	-0.94646545E-2	VXP	134.74965
LMR	-4104.6988	LBARM	-1743.7026	PDOT	-0.70884863E-3	VYP	11.258372
MMR	22[illegible].[illegible]	MBARM	-13408.597	QDOT	-0.19886833E-3	VZP	10.928049
NMR	1971[illegible].526	QBAR	20248.571	RDOT	0.45229108E-3	RSTR.	0.0
XMF	-549.10457	XT	-5.0796026	XTR	0.0	PSIDMG	0.0
YMF	-292.[illegible]598	YT	-134.15464	YTR	872.84792	DTR	4.0
ZMF	-62.757454	ZT	299.31175	ZTR	-244.69705	MADD	0.0
LMF	578.55[illegible]14	LT	-239.40934	LTR	3841.0866	XADD	0.0
MMF	-6935.1375	MT	6495.4565	MTR	-1567.7269	YADD	0.0
NMF	-2595.[illegible]975	NT	3743.6599	NTR	-20847.668	ZADD	0.0
XMT	0.[illegible]19[illegible]1[illegible]	XVT	-4.3993014	ALFMTT	-4.3942027	NADD	0.0
YMT	-1.[illegible]3[illegible]2723	YVT	-138.51270	ALFVTT	4.8137145	LADD	0.0
ZMT	[illegible].[illegible]	ZVT	0.31515941	AA0DIP	4.9294958		

UTTAS(3/6)   1-21-77   30-AUG-77   RUN 6.

WEIGHT	1685?.0	FSCG	3??.2????	V	100.0	PSITR2	0.0
IX	50?9.0	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	3999?.7	RHO	0.2376????E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	31?20.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSIMR	-10.0	PSTR.	0.0
OMEGTR	120.0[illegible]	NSSS	5.0	THSITR	-10.0	WLVT	273.0
RPR	15.0	PASCNT	650.0	WLHT	234.0	FSVT	695.0
FSHT	7??.0[illegible]	SHT	45.0	SVT	32.500000	DSTR.	0.0
LATSTK	-2.39122539	AIS	-1.2117267	IMT	-2.1473698	XA	46.384835
LNGSTK	0.[illegible]12?	BIS	0.9563465	IS	-5.0	XB	10.982842
COLSTK	16.5[illegible]	THETAE	16.504274	TH75MR	6.4202740	XC	37.651717
PEDAL	11.175611	THETTR	16.402741	TH75TR	4.9027414	XP	50.627601
XAIN	8.6370855	XBIN	1.8902002	XCIN	3.7091717	XPIN	2.7330193
XMALTP	[illegible]	XMALTI	2.2667821	RSTR.	0.0	PSTR	0.0
VXB	168.65712	THETAB	3.7050306	AA0F	5.0905205	QSTR	0.0
VYB	11.310877	PHIB	0.0	AA1F	-5.6751459	RSTR	0.0
VZB	11.095577	BETAMF	3.6550209	BB1F	0.89668285E-1	TITR	0.0
P	0.0	GAML	0.0	AA0L	-4.1984855	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	?.24302186	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.36705657	MHITR	0.0
ALFMF	0.[illegible]21	ERIX	1.3062617	ERMFX	0.92627645	LHITR	0.0
CHATMF	8?.?21420	ERTZ	1.6462501	ERMFZ	1.2079705	GHITR	0.0
ERTR	0.0	EPSHT	0.45653420	SIGHT	0.64500210	XITR	0.0
UMF	37.4[illegible]13	KUHT	0.87177979	KUVT	2.83112733	YITR	0.0
MUXS	[illegible]	CTSIG	0.?77?3521E-1	CTOT	3.6000116	ZITR	0.0
MUYS	0.15??2559E-1	CMSIG	-0.47974276E-2	DTOT	24.500591	LITR	0.0
MUZS	0.31[illegible]E-2	CQMSIG	0.4964?179E-6	TTR	854.01965	MITR	0.0
LAMDMR	-0.[illegible]E-2	NZ	0.99798225	HPMR	1141.0459	NITR	0.0
DWSHMR	0.12[illegible]E-1	VC	0.145?5114E-4	KTRBLK	1.0	AXP	2.?064613
XMR	1933.6977	MBAR	-1113.1636	VXBDOT	-0.24269368E-1	AYP	-0.69410877E-2
YMR	[illegible]	JBAR	247.06660	VYBDOT	0.10050957E-2	AZP	-32.110115
ZMR	-15???.477	TBAR	15709.483	VZBDOT	-0.41638227E-2	VXP	168.65712
LMR	-4?01.9?45	LBARM	-2260.4634	PDOT	-0.10446663E-2	VYP	11.310877
MMR	-2??.22412	MBARM	-15466.560	QDOT	-0.24120453E-3	VZP	11.095577
NMR	22?7?.7?4	QBAR	23242.607	RDOT	0.37674142E-2	RSTR.	0.0
XMF	-???.22431	XT	-24.762211	XTR	0.0	PSIDMG	0.0
YMF	-330.37245	YT	-177.17697	YTR	704.55238	BTR	4.0
ZMF	-144.?4659	ZT	452.22412	ZTR	-285.54696	MADD	0.0
LMF	7??.?3956	LT	-317.06667	LTR	4478.6664	XADD	0.0
MMF	-3712.5587	MT	12620.093	MTR	-6847.1973	YADD	0.0
NMF	-5171.4575	NT	4944.1070	NTR	-24307.428	ZADD	0.0
XMT	-13.997659	XVT	-12.764580	ALFMTT	-4.6293152	NADD	0.0
YMT	-1.9522919	YVT	-175.24488	ALFVTT	3.8537362	LADD	0.0
ZMT	451.47437	ZVT	0.35374463	AABB1F	5.6758542		

UTTAS(S/E)   1-21-77   30-AUG-77   RUN 7.

WEIGHT	16450.0	FSCG	363.20000	V	120.0	PSITR2	0.0
IX	5629.0	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39995.0	RHO	0.23780020E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37228.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-16.0	WLVT	273.0
RFR	15.3	PASCNT	482.0	WLHT	234.0	FSVT	695.0
FSHT	707.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.67576859	A1S	-1.4210535	IHT	-4.3467436	XA	45.770196
LNGSTK	14.544197	B1S	11.197095	IS	-3.0	XB	12.741350
COLSTK	17.706066	THETAE	17.706066	TH75MR	7.6260660	XC	45.162914
PEDAL	14.566974	THETTR	19.240254	TH75TR	5.7402541	XP	52.303795
XAIN	4.3777196	XBIN	1.2741350	XCIN	4.5162913	XPIN	2.8243314
XBALTP	12.444363	XBACTI	1.2999383	RSTR.	0.0	PSTR	0.0
VXB	202.45461	THETAB	3.1168687	AA0F	3.1396893	QSTR	0.0
VYB	12.272655	PHIB	0.0	AA1F	-6.9689694	RSTR	0.0
VZB	11.026563	BETAKF	3.3497435	BB1F	-0.31131817E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.0296570	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	2.27798436	JITR	0.0
R	0.0	PSIDUT	0.0	BB1L	0.50807981	MHITR	0.0
ALPWF	0.9395B681	EKTX	1.4750521	EKWFX	0.91249096	LHITR	0.0
CHITPP	86.994365	EKTZ	1.6650187	EKWFZ	1.0090006	QHITR	0.0
EKTR	0.0	EPSWT	0.48549743	SIGWT	0.56955484	XITR	0.0
QWF	52.352244	KWHT	0.87177979	KWVT	0.83258756	YITR	0.0
MUXS	0.27970122	CTSIG	0.68356389E-1	LTOT	3.9771569	ZITR	0.0
MUYS	0.16926564E-1	CHSIG	-0.56734839E-2	DTOT	24.522825	LITR	0.0
MUZS	0.37064F95E-3	CQMSIG	0.56452984E-6	TTR	1030.6780	MITR	0.0
LAMBMR	-0.99452409E-2	NZ	0.99949857	HPMR	1392.5929	NITR	0.0
DWSHMR	0.12515089E-1	VC	0.14505114E-4	KTRBLK	1.0	AXP	1.7330175
XMR	2144.3629	HBAR	-1316.4382	VXBDOT	-0.19809693E-1	AYP	0.26882307E-1
YMR	-272.41793	JBAR	270.41795	VYBDOT	0.17999924E-1	AZP	-32.148481
ZMR	-15764.473	TBAR	15856.350	VZBDOT	-0.21033093E-1	VXP	202.48461
LMR	-6022.1556	LBARM	-3028.2715	PDOT	0.66644188E-2	VYP	12.270855
MMR	-4695.1479	MBARM	-18939.971	QDOT	-0.25208209E-2	VZP	11.026563
NMR	27696.769	QBAR	20346.636	RDOT	0.18053956E-3	RSTR.	0.0
XWF	-1255.4696	XT	-48.238324	XTR	0.0	PSIDMG	0.0
YWF	-462.12191	YT	-236.84878	YTR	976.11089	BTR	0.0
ZWF	-226.21966	ZT	724.06531	ZTR	-355.27592	MADD	0.0
LWF	912.63799	LT	-425.61341	LTR	5572.3236	XADD	0.0
MWF	-4911.9547	MT	26513.692	MTR	-11007.632	YADD	0.0
NWF	-4067.2525	NT	6609.2769	NTR	-30245.162	ZADD	0.0
XHT	-31.155695	XVT	-17.002427	ALFHTT	-5.3688431	NADD	0.0
YHT	-2.5571134	YVT	-238.19167	ALFVTT	3.4323545	LADD	0.0
ZHT	723.75653	ZVT	0.30478071	AABB1F	6.9690369		

[illegible] [illegible] [illegible] [illegible]

WEIGHT	17837.2	[illegible]	387.27222	T	182.2	[illegible]	2.2
IX	5227.2	[illegible]	251.12222	[illegible]	-5.2	[illegible]	2.2
IY	33945.2	[illegible]	2.2378227275E+2	[illegible]	1117.2	[illegible]	2.2
IZ	37227.2	[illegible]	2.2222227726E-1	[illegible]	2.2	[illegible]	2.2
[illegible]	27.31 [illegible]	[illegible]	3.2	[illegible]	-13.2	[illegible]	2.2
[illegible]	124.22222	[illegible]	5.2	[illegible]	-18.2	[illegible]	273.2
[illegible]	73.2	[illegible]	323.2	[illegible]	237.2	[illegible]	593.2
[illegible]	727.22.22	[illegible]	63.2	[illegible]	32.122222	[illegible]	2.2
[illegible]	-2.7227 [illegible]	[illegible]	-1.9222349	[illegible]	-3.2297228	[illegible]	43.224443
[illegible]	12.722422	[illegible]	14.292399	[illegible]	-3.2	[illegible]	4.9242796
[illegible]	17.7 [illegible]	[illegible]	17.411514	[illegible]	9.3312142	[illegible]	55.821963
[illegible]	9.77 [illegible]	[illegible]	27.311433	[illegible]	7.111 [illegible]	[illegible]	54.176247
[illegible]	3.3727223	[illegible]	2.49232795	[illegible]	3.3221953	[illegible]	2.9254326
[illegible]	3.3293113	[illegible]	2.33295113	[illegible]	2.2	[illegible]	2.2
[illegible]	235.34227	[illegible]	2.2155522	[illegible]	3.2247227	[illegible]	2.2
[illegible]	17.122232	[illegible]	2.2	[illegible]	-2.2227275	[illegible]	2.2
[illegible]	12.797467	[illegible]	3.3339381	[illegible]	-2.3112[illegible]	[illegible]	2.2
[illegible]	2.2	[illegible]	2.2	[illegible]	-2.3722757	[illegible]	2.2
[illegible]	2.2	[illegible]	2.2	[illegible]	2.3231299	[illegible]	2.2
[illegible]	2.2	[illegible]	2.2	[illegible]	2.3945325	[illegible]	2.2
[illegible]	2.727 [illegible]	[illegible]	1.5339314	[illegible]	2.3929292	[illegible]	2.2
[illegible]	77.337237	[illegible]	1.7422285	[illegible]	1.212242	[illegible]	2.2
[illegible]	2.2	[illegible]	2.4333393	[illegible]	2.3257731	[illegible]	2.2
[illegible]	72.23 [illegible]	[illegible]	2.37177979	[illegible]	2.3323354	[illegible]	2.2
[illegible]	2.3233132	[illegible]	2.3723734 [illegible]	[illegible]	4.2772727	[illegible]	2.2
[illegible]	2.17 [illegible]	[illegible]	-2.7124522 [illegible]-2	[illegible]	24.537424	[illegible]	2.2
[illegible]	-7.2 [illegible]	[illegible]	2.5179972 [illegible]	[illegible]	1332.4122	[illegible]	2.2
[illegible]	[illegible]	[illegible]	2.99812452	[illegible]	1774.2212	[illegible]	2.2
[illegible]	2.73 [illegible]	[illegible]	2.1432511 [illegible]-4	[illegible]	1.2	[illegible]	1.5223763
[illegible]	2 [illegible].7223	[illegible]	-1933.1273	[illegible]	2.4122724 [illegible]-1	[illegible]	2.2153336 [illegible]-1
[illegible]	-317.2 [illegible]	[illegible]	317.2 [illegible]	[illegible]	2.2 [illegible]-2	[illegible]	-32.29257
[illegible]	-1 [illegible]	[illegible]	15272.222	[illegible]	2.2322 [illegible]-1	[illegible]	235.34258
[illegible]	-77 [illegible]	[illegible]	-4292.2785	[illegible]	2.52341 [illegible]-2	[illegible]	14.122236
[illegible]	[illegible]	[illegible]	-23423.362	[illegible]	2.7421 [illegible]-2	[illegible]	12.797967
[illegible]	33 [illegible]	[illegible]	30112.313	[illegible]	-2.1327 [illegible]-2	[illegible]	2.2
[illegible]	[illegible]	[illegible]	-77.372242	[illegible]	2.2	[illegible]	2.2
[illegible]	[illegible]	[illegible]	-319.23546	[illegible]	1234.7372	[illegible]	4.2
[illegible]	[illegible]	[illegible]	1122.4715	[illegible]	-433.77227	[illegible]	2.2
[illegible]	[illegible]	[illegible]	-337.73322	[illegible]	7154.2424	[illegible]	2.2
[illegible]	[illegible]	[illegible]	31722.225	[illegible]	-14152.327	[illegible]	2.2
[illegible]	[illegible]	[illegible]	2972.4793	[illegible]	-32233.124	[illegible]	2.2
[illegible]	-33.7 [illegible]	[illegible]	-23.512232	[illegible]	-2.2374131	[illegible]	2.2
[illegible]	[illegible]	[illegible]	-313.27225	[illegible]	3.3931332	[illegible]	2.2
[illegible]	[illegible]	[illegible]	2.2721942	[illegible]	2.5553299		

DTTASI(3/8) 1-21-77 30-AUG-77 RUN 9.

WEIGHT	15652.2	FSCG	362.22222	V	157.2	PSITR2	2.2
IX	5627.2	WLCG	251.16222	DELS	-5.2	VXSTR.	2.2
IY	39496.2	RHO	2.2374222E-2	VSOUND	1117.2	VYSTR.	2.2
IZ	37222.2	TIME	2.22222222E-1	DELSMR	2.2	VZSTR.	2.2
OMEGMR	27.219999	MSSS	4.2	TASIMR	-18.2	PSTR.	2.2
OMEGTR	124.92222	MSSS	5.2	TASITR	-13.2	WLVT	273.2
KFF	15.2	FASCNT	573.2	WLHT	234.2	FSVT	595.2
FSHT	[illegible]	SHT	45.2	SVT	32.322222	GSTR.	2.2
LATSTK	-1.2204753	A1S	-2.2556253	IHT	-5.9535778	XA	42.522229
LNGSTK	13.742294	B1S	13.713436	IS	-3.2	XB	2.66962982
COLSTK	22.452155	THETAE	22.452155	TH75MR	12.372155	XC	52.525846
PEDAL	9.4524576	THETTR	21.449519	TH75TR	7.9495195	XP	55.314488
XAIR	4.2322228	XDIN	2.6597298E-1	XCIN	5.2325885	XPIN	2.9859287
XDALTP	-1.33[illegible]	XDALTI	-2.15456729	WSTR.	2.2	PSTR	2.2
VXB	253.27664	THETAB	2.3276622	AA2F	3.2775365	GSTR	2.2
VYB	13.125697	PHIB	2.2	AA1F	-9.5848197	RSTR	2.2
VZB	17.529921	BETAMP	3.3374896	BB1F	-2.46911882	TITR	2.2
P	2.2	GAML	2.2	AA2L	-7.5234495	HITR	2.2
Q	2.2	OMEGAT	1.2	AA1L	2.3537955	JITR	2.2
R	2.2	PSIDOT	2.2	BB1L	2.7962582	KHITR	2.2
ALPHAF	2.9325538	EKTX	1.5298124	EKAPX	2.2231659	LHITR	2.2
CHITPP	72.592412	EKTZ	1.7371395	EKAPZ	1.2116275	GHITR	2.2
EPIR	2.2	EPSAT	2.4537489	SIGMT	2.5973981	XITR	2.2
GAP	74.913542	AGMT	2.6117797	KGAT	2.6326464	YITR	2.2
MUXS	2.3572725	CTSIG	2.6985355E-1	LTOT	2.2141359	ZITR	2.2
MUYS	2.22[illegible]E-1	CHSIG	-2.7729135E-2	DTOT	24.527354	LITR	2.2
MUZS	-2.37[illegible]E-2	CPMSIG	2.92652133E-6	TTR	1519.5567	MITR	2.2
LAMBMR	-2.1237[illegible]E-1	HZ	1.2421538	HPMR	2036.1595	NITR	2.2
DASHMR	2.5395[illegible]E-2	VC	2.2	KIRBLK	1.2	AXP	1.2842188
XPM	2[illegible]4.5414	MBAR	-1768.7782	VXBDOT	-2.4848229E-1	AYP	-2.56792657E-1
YPM	-375.75387	JBAR	375.73387	VYBDOT	-2.2742959E-1	AZP	-32.181233
ZPM	-12[illegible]3.547	TBAR	12212.636	VZBDOT	-2.33297521E-1	VXP	253.27664
LPM	-4472.6172	LBARM	-4712.2662	PDOT	-2.1472814E-1	VYP	13.183697
MPM	-13[illegible].365	MBARM	-25945.368	QDOT	2.1311515E-2	VZP	12.529921
NPM	42592.347	NBAR	41322.491	RDOT	2.3592529E-2	RSTR.	2.2
XAP	-1912.9728	XT	-91.561575	XTR	2.2	PSIOMG	2.2
YAP	-899.58235	YT	-385.22221	YTR	1428.1239	BTR	2.2
ZAP	-332.12213	ZT	1325.2551	ZTR	-519.79561	MADD	2.2
LAP	1385.1827	LT	-652.64191	LTR	8152.7322	XADD	2.2
MAP	-7835.2274	MT	37522.846	MTR	-16165.222	YADD	2.2
NAP	-5123.8973	NT	12229.529	NTR	-34245.222	ZADD	2.2
XMT	-54.361774	XYT	-27.244122	ALFHTT	-6.5474489	NADD	2.2
YMT	-8.5381785	YYT	-381.23223	ALFVTT	3.3592878	LADD	2.2
ZMT	1324.7242	ZYT	2.22228232	AAB1F	9.5972914		

UTTAS(S76) 1-21-77 8-SEP-77 RUN 12.

WEIGHT	19900.0	PSCG	360.20000	V	140.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1910.0	WLHT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	USTR.	0.0
LATSTK	-1.3798829	A1S	-2.3487080	IHT	-4.9968073	XA	41.375731
LNGSTK	13.968756	B1S	14.179321	IS	-5.0	XB	14.244676
COLSTK	19.888068	THETA0	19.888068	TH75MR	9.8868887	XC	58.787930
PEDAL	14.418970	THETTR	25.706253	TH75TR	12.206253	XP	41.630708
XAIN	4.1375731	XBIN	1.4244676	XCIN	5.8787930	XPIN	2.2479997
XBACTP	13.163444	XBACTI	1.3163444	RSTR.	0.0	PSTR	0.0
VXB	236.16613	THETAB	3.4211264	AA0F	3.9779003	QSTR	0.0
VYB	14.086250	PHIB	0.0	AA1F	-8.0696840	RSTR	0.0
VZB	14.119198	BETAWF	3.3094763	BB1F	-0.24999690	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.0159896	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.41012652	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.73937691	MHITR	0.0
ALFWF	1.4462033	EKTX	1.5164054	EKWFX	0.90580918	LHITR	0.0
CHITPP	80.446862	EKTZ	1.6779347	EKWFZ	1.0095531	QHITR	0.0
EKTR	0.0	EPSWT	0.48309476	SIGWT	0.58246783	XITR	0.0
QWF	70.667645	KQMT	0.87177979	KQVT	0.83278099	YITR	0.0
MUXS	0.32631790	CTSIG	0.63109929E-1	LTOT	4.9271002	ZITR	0.0
MUYS	0.19430742E-1	CMSIG	-0.81630130E-2	DTOT	24.675780	LITR	0.0
MUZS	0.23989980E-2	CQMSIG	0.63897310E-6	TTR	1415.4938	MITR	0.0
LAMBMR	-0.84749856E-2	NZ	0.99927145	HPMR	1906.7465	NITR	0.0
DWSHMR	0.10873986E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.9042943
XMR	2900.5603	HBAR	-1894.0922	VXBDOT	-0.29405149E-1	AYP	-0.14610363E-1
YMR	-397.76794	JBAR	397.76794	VYBDOT	-0.51372387E-3	AZP	-32.172627
ZMR	-19157.233	TBAR	19284.285	VZBDOT	-0.35558930E-1	VXP	236.16613
LMR	-8426.0887	LBARM	-4026.6037	PDOT	-0.30961322E-2	VYP	14.086250
MMR	-7416.8105	MBARM	-21727.185	QDOT	-0.83663088E-2	VZP	14.119198
NMR	37808.856	QBAR	38812.383	RDOT	0.34219530E-2	RSTR.	0.0
XWF	-1701.6951	XT	-77.246506	XTR	0.0	PSIDMG	0.0
YWF	-614.29634	YT	-318.46649	YTR	1330.2280	BTR	2.0
ZWF	-391.38724	ZT	958.69202	ZTR	-484.16434	MADD	0.0
LWF	970.13887	LT	-697.51578	LTR	8125.9647	XADD	0.0
MWF	-5106.3585	MT	27176.264	MTR	-15001.025	YADD	0.0
NWF	-5422.8489	NT	8806.8323	NTR	-41214.897	ZADD	0.0
XHT	-53.684132	XVT	-23.562374	ALFHTT	-5.2875001	NADD	0.0
YHT	-3.4697299	YVT	-314.49876	ALFVTT	3.3911929	LADD	0.0
ZHT	958.57248	ZVT	0.11954806	AABB1F	8.0735554		

UTTAS(S76)   1-21-77   6-SEP-77   RUN 13.

WEIGHT	19900.0	FSCG	308.00000	V	132.0	PSITR2	0.0
IX	6255.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMW	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.60000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
RFR	15.0	PASCNT	650.0	WLMT	234.0	FSVT	695.0
FSMT	702.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.7010238	AIS	-2.7684971	IMT	-5.5094292	XA	39.358621
LNGSTK	15.322051	BIS	15.690290	I3	-5.0	XB	9.5376271
COLSTK	20.543819	THETAZ	20.843819	TH75MR	12.763819	XC	64.773872
PEDAL	14.773230	THETTR	27.209813	TH75TR	13.729813	XP	42.640618
XAIN	3.9560621	XBIN	0.95376271	XCIN	6.4773872	XPIN	2.1949683
XBACTP	7.6530351	XBACTI	0.76530350	PSTR.	0.0	PSTR	0.0
VXB	253.29102	THETAS	3.1003745	AA2P	4.2120211	QSTR	0.0
VYB	15.290000	PHIS	0.0	AA1P	-8.0665358	RSTR	0.0
VZB	14.263855	BETAMP	3.3053411	BB1P	-2.45147337	TITR	0.0
P	0.0	GAMC	0.0	AA2L	-6.0242325	MITR	0.0
Q	0.0	OMGRAT	1.0	BA1L	2.45122386	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	2.84124580	MHITR	0.0
ALFWF	1.4496536	EKTX	1.5411723	EKWPX	2.89611502	LHITR	0.0
CHITPP	79.645094	EKTZ	1.6958276	EKWPZ	1.2123531	QHITR	0.0
EKTR	0.0	EPSWT	0.40365341	SIGWT	0.59230008	XITR	0.0
QWF	82.531453	KWMT	0.87177979	KWVT	0.83251252	YITR	0.0
MUXS	0.34952545	CTSIG	0.85528159E-1	LTOT	4.9558733	ZITR	0.0
MUYS	0.21291000E-1	CHSIG	-0.88387702E-2	UTOT	24.688024	LITR	0.0
MUZS	0.11029021E-2	CQMSIG	0.64425797E-5	TTR	1515.5666	MITR	0.0
LAMBMR	-0.90993878E-2	NZ	0.99962372	HPMW	2170.5731	NITR	0.0
DWSHMR	0.10000327E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.7449458
XMR	3002.2000	HBAR	-2050.8925	VXBDOT	-0.49033478E-1	AYP	-0.26566029E-1
YMR	-441.91584	JBAR	-441.91584	VYBDOT	-0.74172958E-2	AZP	-32.179777
ZMR	-19245.457	TBAR	19382.865	VZBDOT	-0.39799582E-1	VXP	253.29102
LMR	-9642.2296	LBARM	-4698.9442	PDOT	-0.71779297E-2	VYP	15.292222
MMR	-10365.472	MBARM	-23856.521	QDOT	-0.59969936E-2	VZP	14.263835
NMR	43143.256	QBAR	44102.852	RDOT	0.24849984E-2	RSTR.	0.0
XWF	-1938.8630	XT	-93.931626	XTR	0.0	PSIDMG	0.0
YWF	-711.38323	YT	-358.85121	YTR	1518.2328	BTR	0.0
ZWF	-448.44797	ZT	1165.6972	ZTR	-552.59917	MADD	0.0
LWF	1123.7297	LT	-826.96377	LTR	9274.5396	XADD	0.0
MWF	-5820.8194	MT	33259.256	MTR	-17121.364	YADD	0.0
NWF	-6284.1199	NT	10292.852	NTR	-47262.472	ZADD	0.0
XMT	-67.145527	XVT	-26.765778	ALFWTT	-5.6692329	NADD	0.0
YMT	-4.0248820	YVT	-388.32853	ALFVTT	3.4381949	LADD	0.0
ZMT	1165.6220	ZVT	0.74628229E-1	AASBIP	3.6752256		

UITAS(5/6)   1-21-77   30-AUG-77   RUN 36.

WEIGHT	19900.0	FSCG	352.27222	V	1.2E-2	PSITR2	0.0
IX	5200.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41367.0	RHO	0.23780222E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	35224.0	TIME	0.20002000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.619999	NRSS	4.0	TASIMR	-10.0	PSTR.	0.0
OMEGTR	124.02222	NSSS	5.0	TASITR	-10.0	WLVT	273.0
RPM	15.0	PASCNT	923.0	WEMT	230.0	PSVT	695.0
FSMT	764.4[illegible]	SMT	45.0	SVT	32.320000	QSTR.	0.0
LATSTK	-0.3150[illegible]142	AIS	-1.1811138	IM1	25.966948	XA	40.239491
LNGSTK	5.0293726	BIS	2.0727322	IS	-5.0	XB	32.227658
COLSTK	15.921073	THETA0	15.981673	TH75MR	8.8216735	XC	52.635462
PEDAL	24.794771	THETTR	34.658779	TH75TR	21.358779	XP	13.225182
XAIN	4.0239491	XBIN	3.2227658	XCIN	5.2635459	XPIN	0.72226147
XBALTP	39.171765	XBALTI	3.9171765	RSTR.	0.0	PSTR	0.0
VXB	0.15524626E-1	THETAB	5.3790727	AA0P	4.1570223	QSTR	0.0
VYB	0.0	PHIB	-2.6656243	AA1P	-2.2111676	RSTR	0.0
VZB	0.15842591E-2	BETAMP	0.0	BB1P	-1.3106956	TITR	0.0
P	0.0	GAML	0.0	AA2L	-7.6931518	HITR	0.0
Q	0.0	OPGRAT	1.0	AA1L	-0.13655737E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.16362113	HHITR	0.0
ALPHP	-10.343367	EKTX	-0.25262663	EKRFX	0.79995593E-5	LHITR	0.0
CHIIPP	-2.1[illegible]45	EKTZ	0.20474855	EKRFZ	0.11099360E-3	QHITR	0.0
EKTP	0.0	EPSHT	0.49999999	SIGMT	0.0	XITR	0.0
GMP	0.3[illegible]43E-6	KSHT	0.67177979	KSVT	0.84852813	YITR	0.0
MUXS	[illegible]	CTSIG	0.90154066E-1	LTOT	-13.624086	ZITR	0.0
MUYS	0.0	CHSIG	-0.55113550E-2	DTOT	25.226190	LITR	0.0
MUZS	[illegible]E-6	LAMSIG	0.65774528E-6	TTR	1319.3277	MITR	0.0
LAMBMR	-0.3[illegible]49E-1	VZ	2.99441299	HPMR	1927.0429	NITR	0.0
DBSMMR	0.5[illegible]E-1	VL	0.10901565E-3	KTRBLK	0.79599999	AXP	3.2196150
XMR	1747.[illegible]	MBAR	-814.75210	VXDOT	0.36664359E-2	AYP	1.5221731
YMR	-336.59794	JBAR	336.59794	VYDOT	0.33232674E-1	AZP	-31.994517
ZMR	-15333.709	TBAR	16665.572	VZDOT	-0.23456321E-3	VXP	0.16824626E-1
LMR	-7574.7[illegible]	LBARM	-3523.2297	PDOT	-0.65489866E-3	VYP	0.0
MMR	13529.3[illegible]	MBARM	-5122.3535	QDOT	0.72612695E-5	VZP	0.15842591E-2
NMR	35[illegible].713	QBAR	39225.522	RDOT	0.31238214E-3	RSTR.	0.0
XMF	-0.[illegible]E-5	XT	4.2611650	XTR	0.0	PSIOMG	0.0
YMF	0.0	YT	-0.47449250E-6	YTR	1259.8547	BTR	0.0
ZMF	0.[illegible]E-5	ZT	5.9441878	ZTR	-451.27120	MADD	0.0
LMF	0.0	LT	-0.12557456E-5	LTR	7573.9211	XADD	0.0
MMF	-0.[illegible]E-3	MT	172.66315	MTR	-13961.662	YADD	0.0
NMF	0.0	NT	0.13236540E-4	NTR	-38414.831	ZADD	0.0
XMT	4.2611[illegible]	XVT	-0.11251711E-6	ALFHTT	-12.09665	NADD	0.0
YMT	0.0	YVT	-0.47449250E-6	ALFVTT	0.0	LADD	0.0
ZMT	5.9441[illegible]	ZVT	0.89699422E-7	AABS1F	2.5704445		

UTTAS(5/M)   1-21-77   30-AUG-77   RUN 34.

WEIGHT	19900.0	PSCG	350.22000	V	40.0	PSITR2	0.0
IX	5000.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.6	RHO	0.23780822E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36000.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TASTMR	-10.0	PSTR.	0.0
OMEGTR	124.00000	NSSS	5.0	TASTTR	-10.0	WLVT	273.0
KFP	15.0	PASCRT	1789.0	RCRT	234.0	PSVT	695.0
FSMI	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTR	-1.7250573	A1S	-2.4317923	IMT	27.095343	XA	39.215890
LNGSTR	5.2405540	B1S	4.1303418	IS	-5.0	XB	31.305553
COLSTR	17.337519	THETAP	17.337519	TH75MR	7.2575195	XC	42.860122
PEDAL	19.000000	THETTR	24.911405	TH75TR	11.411465	XP	35.356113
XAIR	3.9215890	XBIR	3.1305533	XCIR	4.2860121	XPIR	1.9091804
XBALIP	57.000025	XBALTI	5.7864425	PSTR.	0.0	PSTR	0.0
VXB	67.397243	THETAB	4.4161392	AAOP	4.0660283	QSTR	0.0
VYB	0.0	PHIB	-1.4479620	AA1P	-2.5982430	RSTR	0.0
VZB	5.2076417	BETAWF	0.0	BB1P	-0.18730043	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.1682034	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.25352349	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13468700	MHITR	0.0
ALPHAF	-13.077059	EKTX	1.1102937	EKWFX	0.76130461	LHITR	0.0
CHITPP	67.792070	EKTZ	2.2432155	EKWFZ	1.2244146	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QPP	9.5531723	KGHT	0.87177979	KGVT	0.84852815	YITR	0.0
MUXS	0.93227975E-1	CTSIG	0.62132007E-1	LTOT	-21.825976	ZITR	0.0
MUYS	0.0	CHSIG	-0.29517456E-2	DTOT	26.839965	LITR	0.0
MUZS	0.23717209E-2	CQMSIG	0.65534178E-6	TTR	962.77001	MITR	0.0
LAMBMR	-0.33215734E-1	NZ	0.99685525	HPMR	1486.1058	NITR	0.0
DWSHMR	0.33323300E-1	VL	9.11676338	KTRBLK	1.0	AXP	2.5120026
XMR	1601.2774	HSAR	-684.96386	VXBDOT	0.32840005E-1	AYP	0.78547506
YMR	-433.03993	JSAR	433.03993	VYBDOT	-0.50155167E-2	AZP	-32.073039
ZMR	-18994.113	TSAR	19257.562	VZBDOT	-0.73471720E-2	VXP	67.397243
LMR	-5504.2512	LSARM	-1423.6276	PDOT	0.69378148E-3	VYP	0.0
MMR	14361.465	MSARM	-6937.1763	QDOT	-0.20397178E-3	VZP	5.2076417
NMR	27746.958	QSAR	28621.696	RDOT	-0.75281041E-3	RSTR.	0.0
XWF	-199.41159	XT	6.0525415	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-7.5866345	YTR	984.77514	BTR	2.0
ZWF	262.57417	ZT	32.753866	ZTR	-329.31185	MADD	0.0
LWF	0.0	LT	-16.600262	LTR	5527.0004	XADD	0.0
MWF	-5137.4651	MT	943.69699	MTR	-12263.178	YADD	0.0
NWF	0.0	NT	211.66710	NTR	-28632.949	ZADD	0.0
XHT	12.977000	XVT	-1.9951388	ALFHTT	-0.86281371	NADD	0.0
YHT	0.0	YVT	-7.5866345	ALFVTT	0.0	LADD	0.0
ZHT	31.500072	ZVT	1.0949344	AABB1F	2.6249910		

UTTAS(376)   1-21-77   30-AUG-77   RUN 28.

WEIGHT	13922.0	PSCG	360.20202	V	62.0	PSITR2	0.0
IX	6855.2	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.23768008E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	35229.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NBSS	4.0	TWSTMR	-15.0	PSTR.	0.0
OMEGTR	124.82002	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
RPR	13.2	PASCNT	1077.0	WLHT	234.0	FSVT	695.0
FSMT	[illegible]	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-1.7131698	A1S	-1.6552690	IHT	14.317495	XA	43.661438
LNGSTK	[illegible]	B1S	5.1234212	IS	-5.0	XB	26.659561
COLSTK	18.713972	THETA0	15.713972	TH75MR	6.5539722	XC	38.962327
PEDAL	15.767115	THETTR	25.247880	TH75TR	9.7470664	XP	37.693341
XAIR	4.3561458	XSIR	2.8059961	XCIR	3.5762327	XPIR	2.2461072
XBACTP	[illegible]	XBACT1	3.2934738	RSTR.	0.0	PSTR	0.0
VXB	101.18342	THETAB	3.7511105	AA0P	3.9477367	QSTR	0.0
VYB	12.954467	PHIB	0.0	AA1P	-2.6161533	RSTR	0.0
VZB	6.6343625	BETAKP	6.3055176	BB1P	0.42100485E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.3099324	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24007037	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.11604274	MHITR	0.0
ALFAF	-5.3151446	EKTX	1.3653120	EKWFX	0.66053079	LHITR	0.0
CHITPP	76.211591	EKTZ	1.8474976	EKWFZ	1.0117881	UHITR	0.0
ETIR	0.0	EPSWT	0.51365517	SIGWT	1.2418641	XITR	0.0
GAF	15.559219	KWMT	0.87177979	KGVT	0.79561381	YITR	0.0
MUX3	0.13499243	C1SIG	0.81363516E-1	L1OT	-3.5599270	ZITR	0.0
MUYS	0.17695547E-1	CMSIG	-0.28363126E-2	D1OT	25.515201	LITR	0.0
MUZS	0.14537698E-2	CLMSIG	0.63412798E-6	TTR	814.71334	MITR	0.0
LAMDAP	-0.22599499E-1	NZ	0.99767139	HPMR	1175.6559	NITR	0.0
DASHMR	0.24493296E-1	VC	4.35762786E-5	KTRBLK	1.0	AXP	2.0908061
XMR	1545.4550	HBAR	-656.11947	VXBDOT	-0.13364587E-1	AYP	-0.39639441E-3
YMR	-594.26879	JBAR	564.26879	VYBDOT	0.22484420E-2	AZP	-32.048456
ZMR	-14921.912	TBAR	10863.700	VZBDOT	0.62022823E-2	VXP	101.18342
LMR	-4957.9214	LBARM	-1417.0662	PDOT	-0.25570157E-3	VYP	12.954467
MMR	14155.150	MBARM	-7113.1114	QDOT	0.29429685E-3	VZP	6.6343625
NMR	25157.290	QBAR	23950.414	RDOT	0.87883605E-3	RSTR.	0.0
XMF	-357.25934	XT	-17.240102	XTR	0.0	PSIDMG	0.0
YMF	-274.72694	YT	-145.54621	YTR	765.63700	BTR	2.0
ZMF	96.545792	ZT	-39.555247	ZTR	-278.66962	MADD	0.0
LMF	512.75127	LT	-230.47646	LTR	4677.0472	XADD	0.0
MMF	-4546.8144	MT	-1142.1912	MTR	-6634.1136	YADD	0.0
NMF	-2509.7512	NT	2935.6361	NTR	-23721.986	ZADD	0.0
XHT	-15.255916	XVT	4.9958166	ALFHTT	2.8275229	NADD	0.0
YHT	[illegible]	YVT	-104.12842	ALFVTT	7.6450283	LADD	0.0
ZHT	[illegible]	ZVT	-0.23886521	AAB01P	2.5164931		

UTTAS(576)   1-21-77   30-AUG-77   RUN 29.

WEIGHT	199[illegible].0	FSCG	360.20020	V	83.2	PSITR2	0.0
IX	6255.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41357.0	RHO	0.23782220E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.24000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
RPR	15.0	PASCNT	1322.0	WLMT	238.0	FSVT	695.0
FSMT	722.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.59374148	A1S	-1.5459529	IHT	0.56252289	XA	44.414115
LNGSTK	8.8926291	B1S	8.1939654	IS	-3.0	XB	18.577281
COLSTK	16.812149	THETA0	16.812149	TH75MR	6.7321494	XC	39.575934
PEDAL	14.402647	THETTR	22.081226	TH75TR	8.5812266	XP	41.454181
XAIN	4.4413115	XBIN	1.8577281	XCIN	3.9575934	XPIN	2.2384675
XBACTP	22.511420	XBACTI	2.2611920	RSTR.	0.0	PSTR	0.0
VXB	134.60519	THETAB	5.3592774	AA0F	3.9492476	QSTR	0.0
VYB	12.676533	PHIB	0.0	AA1F	-5.1259821	RSTR	0.0
VZB	12.580529	BETAWF	4.6932983	BB1F	0.82351676E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.2969659	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.29884530	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.35822232	MHITR	0.0
ALPHF	-0.44492292	EKTX	1.4071622	EKWPX	0.91884859	LHITR	0.0
CHITPP	81.449915	EKTZ	1.6799861	EKWPZ	1.0085500	QHITR	0.0
EKTR	0.0	EPSWT	0.49693297	SIGWT	0.82802850	XITR	0.0
QWF	25.905509	KUHT	0.87177979	KUVT	0.82610750	YITR	0.0
MUXS	0.16531531	CTSIG	0.82178597E-1	CTOT	2.3434116	ZITR	0.0
MUYS	0.14656513E-1	CHSIG	-0.59844284E-2	QTOT	24.518659	LITR	0.0
MUZS	0.75113644E-2	CQMSIG	0.58433840E-6	TTR	829.87258	MITR	0.0
LAMHMR	-0.11156491E-1	NZ	0.99553448	HPMR	1163.7512	NITR	0.0
DWSHMR	0.13767846E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.9886527
XMR	2564.4904	HBAR	-1368.5877	VXBDOT	-0.31768114E-2	AYP	-0.18340389E-1
YMR	-325.16559	JBAR	325.18889	VYBDOT	-0.17283814E-1	AZP	-32.029499
ZMR	-18967.971	TBAR	19068.155	VZBDOT	0.21246476E-2	VXP	134.60519
LMR	-4959.2276	LBARM	-1811.5192	PDOT	-0.49499578E-2	VYP	12.278533
MMR	3164.6652	MBARM	-13935.217	QDOT	0.11635551E-2	VZP	12.580529
NMR	25022.597	QBAR	23688.498	RDOT	-0.24742914E-3	RSTR.	0.0
XWF	-511.56214	XT	1.3413611	XTR	0.0	PSIDMG	0.0
YWF	-318.33495	YT	-182.11838	YTR	779.88313	BTR	0.0
ZWF	-55.963357	ZT	384.95779	ZTR	-283.85479	MADD	0.0
LWF	580.67658	LT	-319.23289	LTR	8784.0725	XADD	0.0
MWF	-2901.1252	MT	6059.3866	MTR	-8794.7677	YADD	0.0
NWF	-2825.2975	NT	5955.8176	NTR	-24163.378	ZADD	0.0
XHT	5.2190750	XVT	-3.8785139	ALFHTT	-4.2306754	NADD	0.0
YHT	-1.8578277	YVT	-182.27695	ALFVTT	5.1827859	LADD	0.0
ZHT	344.63234	ZVT	0.32524453	AABB1F	5.1266435		

UTTAS(S/F)   1-21-77   30-AUG-77   RUN 30.

WEIGHT	19977.0	FSCG	382.20000	V	100.0	PSITR2	0.0
IX	6260.0	WLCG	246.24999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.23782220E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36224.0	TIME	0.24022222E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NMSS	4.0	TWSTMR	-18.0	WSTR.	0.0
OMEGTR	124.02000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	839.0	PLMT	234.0	PSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTK	-0.86182871	A1S	-1.5696081	IMT	-1.9297124	XA	44.614845
LNGSTK	9.4049440	B1S	9.5019352	IS	-3.0	XB	15.000197
COLSTK	17.353620	THETA0	17.353626	TH75MR	7.2736259	XC	42.960163
PEDAL	13.986135	THETTR	22.234406	TH75TR	6.7344861	XP	42.832650
XAIN	8.4813885	XBIN	1.5026197	XCIN	4.2980182	XPIN	2.3127938
XBALTR	17.250057	XBALTI	1.7256057	RSTR.	0.0	PSTR	0.0
VXB	168.47008	THETAB	4.5077651	AAGF	3.9214290	QSTR	0.0
VYB	11.490813	PHIB	0.0	AA1F	-5.6300540	RSTR	0.0
VZB	13.262449	BETANF	3.6789407	BB1F	0.12111235	TITR	0.0
P	0.0	GAML	0.0	AA0L	-4.6913106	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.32100037	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.42414700	MHITR	0.0
ALFWF	0.75295160	EKTX	1.3722549	EKWFX	0.92859407	LHITR	0.0
CHITPP	52.164160	EKTZ	1.6433592	EKWFZ	1.2876158	GHITR	0.0
EKTR	0.0	EPSWT	0.40078940	SIGWT	0.64749357	XITR	0.0
QWF	36.000300	KGHT	0.87177979	KWVT	0.85100449	YITR	0.0
MUXS	0.53371195	CTSIG	0.82166557E-1	ETDT	3.7900809	ZITR	0.0
MUYS	0.15050564E-1	CHSIG	-0.61824551E-2	DTDT	24.535673	LITR	0.0
MUZS	0.61334722E-2	CQMSIG	0.62992208E-6	TIP	923.00141	MITR	0.0
LAMOMR	-0.09125040E-2	NZ	0.99661716	HPMR	1267.7021	NITR	0.0
OMSMMR	0.15045774E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.5184403
XMR	2436.1515	HBAR	-1434.5365	VXBDOT	-0.65919388E-2	AYP	-0.27310751E-1
YMR	-325.17692	JBAR	328.17692	VYBDOT	-0.13260364E-1	AZP	-32.065494
ZMR	-18951.516	TBAR	19263.999	VZBDOT	0.79549782E-2	VXP	168.47008
LMR	-5537.5534	LBARM	-2231.5081	PDOT	-0.67541058E-2	VYP	11.490813
MMR	1572.2426	MBARM	-15222.447	QDOT	0.21379578E-2	VZP	13.262449
NMR	25128.572	QBAR	25804.447	RDOT	-0.72725037E-3	WSTR.	0.0
XWF	-910.28275	X1	-25.040225	XIH	0.0	PSIDMG	0.0
YWF	-367.20401	YT	-179.56283	YIH	667.00211	DTW	2.0
ZWF	-158.27932	ZT	409.67685	ZIH	-315.70915	MADD	0.0
LWF	572.00519	LT	-393.23299	LIH	5298.6996	XADD	0.0
MWF	-3322.4837	MT	11524.654	MIH	-9781.7222	YADD	0.0
NWF	-3257.4541	NT	5608.9820	NIH	-20875.028	ZADD	0.0
XHT	-12.455302	XVT	-10.556923	ALFHTI	-4.0742557	NADD	0.0
YHT	-1.2995352	YVT	-177.60714	ALFVTI	3.9921054	LADD	0.0
ZHT	479.29152	ZVT	0.39532552	AABB1F	5.6513565		

WEIGHT	1999[illegible].0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	[illegible]00.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780207E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	30[illegible]24.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.[illegible]19999	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-16.0	WLVT	273.0
KFR	15.0	PASCNT	650.0	WLHT	234.0	FSVT	695.0
FSMT	700.4[illegible]	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-[illegible].9875[illegible]	A1S	-1.8076184	IHT	-3.7652658	XA	43.827820
LNGSTK	11.616727	B1S	11.507868	IS	-3.0	XB	8.9514927
COLSTK	16.373881	THETA0	16.373881	TH75MR	8.2938810	XC	49.336758
PEDAL	13.992[illegible]4	THETTR	23.464861	TH75TR	9.9648616	XP	42.813804
XAIN	4.3527920	XBIN	0.89514927	XCIN	4.9536757	XPIN	2.3118853
XBACTP	9.5651741	XBACTI	0.95651740	RSTR.	0.0	PSTR	0.0
VXB	202.34284	THETAB	3.8803538	AAKP	3.9343484	QSTR	0.0
VYB	12.147740	PHIB	0.0	AA1F	-6.6272144	RSTR	0.0
VZB	13.725623	BETAWF	3.2950735	BB1F	0.41697418E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.5727357	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.35889046	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.54690050	MHITR	0.0
ALPHAF	1.2240453	EKTX	1.4241069	EKWFX	0.92182146	LHITR	0.0
CHIPF	81.[illegible]75575	EKTZ	1.6446784	EKWFZ	1.0083214	CHITR	0.0
EKTR	0.0	EPSWT	0.48295873	SIGWT	0.57993292	XITR	0.0
QWF	53.014540	KWHT	0.87177979	KGVT	0.83285617	YITR	0.0
MUXS	0.27970779	CTSIG	0.82520738E-1	LTOT	8.5227328	ZITR	0.0
MUYS	0.15756738E-1	CMSIG	-0.64692014E-2	DTOT	24.606468	LITR	0.0
MUZS	0.4239[illegible]75E-2	COMSIG	0.632[illegible]0945E-6	TTR	1113.8902	MITR	0.0
LAMBMR	-0.[illegible]5253E-2	NZ	0.99740653	HPMR	1505.8917	NITR	0.0
DWSHMF	0.125[illegible]3559E-1	VC	0.71525573E-5	KTPBLK	1.0	AXP	2.1729514
XMR	2615.[illegible]	MBAR	-1617.0680	VXBDOT	0.35966927E-2	AYP	-0.33913172E-1
YMR	-363.64285	JBAR	363.64285	VYBDOT	-0.18252371E-1	AZP	-32.082906
ZMR	-19131.5[illegible]	IBAR	19145.861	VZBDOT	0.16914587E-1	VXP	202.34284
LMR	-6571.9[illegible]	LBARM	-2901.5856	PDOT	-0.11789320E-1	VYP	12.147740
MMR	-2771.[illegible]595	MBARM	-17869.492	QDOT	0.50595292E-2	VZP	13.725623
NMR	2903[illegible].369	QBAR	30852.867	RDOT	-0.22784791E-2	RSTR.	0.0
XWF	-1274.7297	XT	-47.617626	XTR	0.0	PSIDMG	0.0
YWF	-45[illegible].[illegible]2973	YT	-235.34927	YTR	1045.7923	DTR	2.0
ZWF	-267.16275	ZT	641.17845	ZTR	-381.00197	MADD	0.0
LWF	723.47715	LT	-515.73706	LTR	6394.5406	XADD	0.0
MWF	-4297.1067	MT	18164.178	MTR	-11804.711	YADD	0.0
NWF	-4030.7915	NT	8567.3350	NTR	-32433.114	ZADD	0.0
XHT	-30.637254	AVT	-17.220572	ALFHTT	-4.6718217	NADD	0.0
YHT	-2.335278[illegible]	YVT	-232.91382	ALFVTT	3.4184942	LADD	0.0
ZHT	642.[illegible]	ZVT	0.27160240	AABB1F	6.6273456		

UTTAS(57E)   1-21-77   30-AUG-77   RUN 52.

WEIGHT	1995[illegible]	FSCG	300.00000	V	180.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.23780880E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSIMR	-18.0	PSTR.	0.0
OMEGTR	124.[illegible]	NSSS	5.0	THSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	871.0	KCMT	250.0	FSVT	695.0
FSHT	722.[illegible]	SHT	45.0	SVT	32.300000	USTR.	0.0
LATSTR	-1.5[illegible]	AIS	-2.3498386	IMT	-5.2418507	XA	41.370003
LNGSTR	13.971514	BIS	14.181699	IS	-3.0	XB	0.65066929
COLSTR	19.[illegible]514	THETAR	19.889514	TH75MR	9.8095144	XC	58.809465
PEDAL	14.[illegible]	THETTR	25.717481	TH75TR	12.217481	XP	41.611044
XAIN	0.157[illegible]822	XBIN	0.83808929E-1	XCIN	5.8509485	XPIN	2.2469379
XBALTP	-0.45234[illegible]	XBALTI	-0.45234009E-1	PSTR.	0.0	PSTR	0.0
VXM	236.16713	THETAB	3.4165000	AABF	3.9794019	QSTR	0.0
VYM	14.098651	PHIB	0.0	AA1F	-0.0677090	RSTR	0.0
VZB	14.1[illegible]150	BETAWF	3.3123722	BB1F	-0.25026072	TITR	0.0
P	0.0	GAMC	0.0	AACL	-7.0194736	HITR	0.0
Q	0.0	OMGPAT	1.0	AA1L	2.41530321	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.73561136	MHITR	0.0
ALFWF	1.[illegible]	EKTX	1.5167144	EKWFX	0.90576940	LHITR	0.0
CHIPF	56.443[illegible]	EKTZ	1.6786172	EKWFZ	1.0095561	UHITR	0.0
EKIW	0.0	EPSWT	0.40512371	SIGWT	0.50297751	XITR	0.0
UWF	7[illegible]	KWHT	0.87177979	KUVT	0.83276708	YITR	0.0
MUXS	[illegible]	CTSIG	0.65113205E-1	ETOT	4.9195709	ZITR	0.0
MUYS	0.1934[illegible]E-1	CHSIG	-0.51331914E-2	DTOT	24.674911	LITR	0.0
MUZS	[illegible]E-2	CQMSIG	0.65921429E-6	TTR	1416.4879	MITR	0.0
LAMBMR	-0.05[illegible]E-2	NZ	0.99883077	HPMR	1908.1615	NITR	0.0
DWSMMR	0.122[illegible]E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.0798546
XMR	2643.7115	HBAR	-1867.1726	VXBDOT	-0.38041757E-1	AYP	-0.35916692E-1
YMR	[illegible]	JBAR	404.52109	VYBDOT	-0.12122362E-1	AZP	-32.143636
ZMR	-19155.373	TBAR	19285.064	VZBDOT	-2.21244062E-1	VXP	236.16713
LMR	-8469.7921	LBARM	-4026.6960	PDOT	-0.93392359E-2	VYP	14.098651
MMR	-73[illegible]	MBARM	-21721.684	QDOT	-0.13543825E-2	VZP	14.100150
NMR	37[illegible]	WBAR	30841.155	RDOT	0.27608904E-2	RSTR.	0.0
XWF	-1771.0539	XT	-77.554164	XTR	0.0	PSIDMG	0.0
YWF	-614.[illegible]	YT	-319.69245	YTR	1351.1622	WTR	2.0
ZWF	-39[illegible].71567	ZT	967.91142	ZTR	-484.50436	MADD	0.2
LWF	978.97564	LT	-697.71375	LTR	8131.6717	XADD	0.2
MWF	-5113.5981	MT	27437.267	MTR	-15011.560	YADD	0.0
NWF	-5427.7037	NT	8693.0548	NTR	-41245.844	ZADD	0.0
XMT	-54.[illegible]7551	XVT	-23.546633	ALFHTT	-5.3383218	NADD	0.0
YMT	-3.50[illegible]	YVT	-315.19184	ALFVTT	3.3942437	LADD	0.0
ZMT	967.7595[illegible]	ZVT	0.12183496	AABB1F	0.0716698		

WEIGHT	19977.0	FSCG	360.20000	V	152.0	PSITRZ	0.0
IX	6266.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	36226.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NESS	4.0	TRSIMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TRSITR	-18.0	WLVT	273.0
RFR	13.0	PASCNT	2984.0	WLHT	234.0	FSVT	695.0
FSHT	700.47000	SHT	45.0	SVT	32.500000	USTR.	0.0
LATSTK	-1.5651752	A1S	-2.7520689	IHT	-5.5420985	XA	39.407667
LNGSTK	14.149999	B1S	14.520063	IS	-5.0	XB	0.0
COLSTK	20.822676	THETA0	20.822676	TH75MR	10.742676	XL	64.641730
PEDAL	14.799105	THETTR	27.210397	TH75TR	13.710397	XP	40.576665
XAIN	3.9467667	XBIN	0.0	XCIN	6.4641730	XPIN	2.1910829
XBALIP	-2.2603098	XBALTI	-0.22603098	RSTR.	0.0	PSTR	0.0
VXB	253.30319	THETAB	2.2662875	AAZP	4.0973046	QSTR	0.0
VYB	14.684941	PHIB	0.0	AA1P	-7.5825496	RSTR	0.0
VZB	10.224502	BETAHP	3.2283334	BB1P	-0.34475084	TITR	0.0
P	0.0	GAML	0.0	AA0L	-7.9664490	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.44595707	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.71456545	MHITR	0.0
ALPHF	2.52998658	EKTX	1.5496155	EKWPX	0.89983081	LMITR	0.0
CHITPP	79.984621	EKTZ	1.6963644	EKWFZ	1.0170153	UMITR	0.0
EKTH	0.0	EPSAT	0.40220333	SIGAT	0.56810670	XITR	0.0
QHP	87.695013	KUHT	0.87177979	KUVT	0.83317065	YITR	0.0
MUXS	0.34962715	CTSIG	0.85284435E-1	LTOT	3.2953088	ZITR	0.0
MUYS	0.22656364E-1	CMSIG	-0.74659716E-2	DTOT	24.384662	LITR	0.0
MUZS	-0.44742511E-2	CGMSIG	0.55815310E-6	TTR	1073.4066	MITR	0.0
LAMBMR	-0.14661356E-1	NZ	0.99943774	HPMR	2154.7250	NITR	0.0
DWSHMR	0.10463125E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	0.75786995
XMR	2756.5524	MBAR	-1717.9692	VXBDOT	-0.25181445E-1	AYP	-0.89964120E-1
YMR	-492.73551	JBAR	492.73551	VYBDOT	-0.44027506E-1	AZP	-31.494026
ZMR	-19661.010	TBAR	19779.562	VZBDOT	-0.68679224E-2	VXP	253.30319
LMR	-9662.1752	LBARM	-4444.1771	PDOT	-0.29800551E-1	VYP	14.684941
MMR	-4276.2263	MBARM	-20513.149	QDOT	0.27061774	VZP	10.224502
NMR	42735.909	QBAR	43062.050	RDOT	-0.28163179E-3	RSTR.	0.0
XHF	-1929.5750	XT	-61.070546	XTR	0.0	PSIDMG	0.0
YHF	-582.74565	YT	-359.28493	YTR	1520.8966	BTR	0.0
ZHF	-279.75160	ZT	1411.9615	ZTR	-544.46657	MADD	0.0
LHF	1079.7445	LT	-785.89744	LTR	9205.1801	XADD	0.0
MHF	-7511.6549	MT	46055.364	MTR	-16993.322	YADD	0.0
NHF	-5243.5759	NT	10026.197	NTR	-46686.679	ZADD	0.0
XHT	-53.491509	XVT	-27.579038	ALFHTT	-6.6354670	NADD	0.0
YHT	-4.7727279	YVT	-398.51218	ALFVTT	3.2967971	LADD	0.0
ZHT	1411.5672	ZVT	0.51424683	AADBIF	7.5903828		

UTTAS(576)   1-21-77   30-AUG-77   RUN 17.

WEIGHT	16852.0	FSCG	348.20000	V	82.0	PSITRZ	0.0
IX	5624.0	WLCG	251.10400	DELS	-5.0	VXSTR.	0.0
IY	39996.7	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.014999	NBSS	4.0	TASIMR	-10.0	PSTR.	0.0
OMEGTR	124.42000	NSSS	5.0	TASITR	-10.0	WLVT	273.0
KPR	15.0	PASCNT	1791.0	WLHT	250.0	FSVT	595.0
FSHT	700.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTR	-1.3413315	AIS	-1.9559842	IHT	26.591711	XA	41.492383
LNGSTR	5.9963004	BIS	3.4666662	IS	-3.0	XB	36.196290
COLSTR	15.057016	THETAO	15.057016	THTSMR	5.9770165	XC	34.056350
PEDAL	12.772745	THETTR	19.463165	THTSTR	5.9531655	XP	46.199973
XAIR	4.1497522	XCIR	3.8198789	XCIT	3.2858353	XPIN	2.8987336
XBALTP	42.565414	XBACTI	4.2565414	RSTR.	0.0	PSTR	0.0
VXB	67.458235	THETAB	3.7087499	AA0F	3.1702728	GSTR	0.0
VYB	0.0	PHIB	-1.4404020	AA1F	-2.1722624	RSTR	0.0
VZB	4.3724967	BETAMF	0.0	BB1F	-0.61950909E-1	TITR	0.0
P	0.0	GAML	0.0	AA0L	-3.9953211	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	2.1707781	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.94156533E-1	MHITR	0.0
ALPHP	-11.728509	EKTX	1.1065920	EKAPX	0.74809560	LHITR	0.0
CHITPP	72.066644	EKTZ	2.2473737	EKAPZ	1.2191912	GHITR	0.0
EKIN	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	0.5585745	KWH1	0.67177979	KWVT	0.84852815	YITR	0.0
MUXS	0.93233537E-1	ETSIG	0.87847812E-1	ETOT	-17.144344	ZITR	0.0
MUYS	0.0	CHSIG	-0.10164730E-2	DTOT	25.695775	LITR	0.0
MUZS	0.11533557E-2	COMSIG	0.51052234E-6	TIR	756.52124	MITR	0.0
LAMBMR	-0.28549125E-1	NZ	0.99764822	HPMR	1101.4250	NITR	0.0
DWSMMR	0.24939991E-1	VL	0.10097622	KIRBLK	1.0	AXP	2.0974315
XMR	1255.7535	MBAR	-421.48255	VXBDOT	0.16102421E-1	AYP	0.80226835
YMR	-313.63002	JBAR	313.63002	VYBDOT	-0.46657049E-2	AZP	-32.048972
ZMR	-15512.744	TBAR	15557.336	VZBDOT	-0.41171087E-2	VXP	67.458235
LMR	-4245.1254	LBARM	-1117.6117	PDOT	-0.52210683E-3	VYP	0.0
MMR	15494.154	MBARM	-5654.9170	QDOT	-0.23139044E-3	VZP	4.3724967
NMR	21805.345	QBAR	22419.025	RDOT	-0.27002925E-3	RSTR.	0.0
XMF	-194.44465	XT	-21.171516	XTR	0.0	PSIDMG	0.0
YMF	0.0	YT	-7.5058017	YTR	712.95029	BIR	4.0
ZMF	195.99546	ZT	-25.659705	ZTR	-258.76524	MADD	0.0
LMF	0.0	LT	-13.844584	LTR	4058.6023	XADD	0.0
MMF	-4324.5576	MT	-751.59684	MTR	-8817.4097	YADD	0.0
NMF	0.0	NT	211.54250	NTR	-22227.604	ZADD	0.0
XHT	-19.119767	XVT	-2.0515485	ALFHTT	0.97851419	NADD	0.0
YHT	0.0	YVT	-7.5058017	ALFVTT	4.0	LADD	0.0
ZHT	-25.545226	ZVT	4.98552117	AABB1F	2.1731450		

WEIGHT	1645[illegible]	FSCG	357.20000	V	60.0	PSITR2	0.0
IX	50[illegible]	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39995.0	RHO	0.23760000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	372[illegible]	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	FASCNT	1196.0	WLMT	234.0	FSVT	695.0
FSHT	7[illegible].40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.77763249	AIS	-1.3046502	IMT	13.165516	XA	45.132297
LNGSTK	5.5257654	BIS	4.2277621	IS	-5.0	XB	30.470793
COLSTK	15.585026	THETA0	15.585026	TH75MR	5.5752262	XC	31.906414
PEDAL	15.599655	THETTR	21.404607	TH75TR	7.9846870	XP	39.025682
XAIN	4.5132296	XBIN	3.7472793	XCIN	3.1926414	XPIN	2.1073322
XPACTF	35.741890	XBACTI	3.5041890	RSTR.	0.0	PSTR	0.0
VXB	101.25684	THETAB	2.9602983	AA0F	3.0666109	QSTR	0.0
VYB	11.936227	PHIS	0.0	AA1F	-2.1670881	RSTR	0.0
VZB	5.2365291	BETAWF	5.9405193	BB1F	0.66043304E-1	TITR	0.0
P	0.0	GAML	0.0	AA0L	-3.4806391	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.16364891	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.94350420E-1	MHITR	0.0
ALFWF	-4.7767766	EKTX	1.3798324	EKWFX	0.89527561	LHITR	0.0
CHIPP	79.577511	EKTZ	1.8285009	EKWFZ	1.0184294	QHITR	0.0
EKTH	0.0	EPSWT	0.50940518	SIGWT	0.99662441	XITR	0.0
QWF	15.429966	KGMT	0.87177979	KQVT	0.80382914	YITR	0.0
MUXS	2.13985765	CTSIG	0.66511882E-1	LTOT	-2.5464282	ZITR	0.0
MUYS	0.15464974E-1	CMSIG	-0.16781210E-2	DTOT	25.144311	LITR	0.0
MUZS	-0.45928236E-4	CQHSIG	0.49259199E-6	TTR	671.61545	MITR	0.0
LAMBMR	-0.20296663E-1	NZ	0.99852628	HPMR	959.27262	NITR	0.0
OWSHMR	0.20199734E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.6534880
XMR	1190.4919	HBAR	-387.38026	VXBDOT	-0.79001090E-2	AYP	0.55388183E-3
YMR	-285.05483	JBAR	285.05483	VYBDOT	0.12810988E-2	AZP	-32.126442
ZMR	-15390.256	TBAR	15432.983	VZBDOT	0.20245234E-2	VXP	101.25684
LMR	-3974.8864	LBARM	-1358.2233	PDOT	-0.31926682E-3	VYP	11.936227
MMR	12965.544	MBARM	-5945.5029	QDOT	2.98061257E-4	VZP	5.2365291
NMR	18952.145	QBAR	19526.274	RDOT	0.31259734E-4	RSTR.	0.0
XWF	-369.04596	XT	-22.963525	XTR	0.0	PSIDMG	0.0
YWF	-200.98518	YT	-98.593088	YTR	631.13713	BTR	2.0
ZWF	71.363632	ZT	-66.324726	ZTR	-229.72285	MADD	0.0
LWF	546.27154	LT	-176.32161	LTR	3603.0870	XADD	0.0
MWF	-3951.3095	MT	-1912.6530	MTR	-7117.5797	YADD	0.0
NWF	-2146.3601	NT	2751.2639	NTR	-19555.351	ZADD	0.0
XHT	-22.811522	XVT	-0.92003049E-1	ALFHTT	1.4761458	NADD	0.0
YHT	-1.1113925	YVT	-97.482344	ALFVTT	7.1200246	LADD	0.0
ZHT	-65.343762	ZVT	0.19034723E-1	AA0B1F	2.1680942		

WEIGHT	15352.0	PSCG	302.0000	V	80.0	PSITR2	0.0
IX	5049.0	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39995.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37000.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.014994	NBSS	6.0	TASIMR	-10.0	PSTR.	0.0
OMEGTR	124.00000	NBSS	5.0	TASITR	-10.0	WLVT	273.0
RPM	15.0	PASCHT	1230.0	WEMT	230.0	FSVT	595.0
FSHT	720.00000	SHT	45.0	SVT	32.300000	BSTR.	0.0
LATSTK	-0.85205057	AIS	-1.1791539	IMT	-0.47599967	XA	46.250521
LNGSTK	8.4145150	BIS	7.4440345	IS	-3.0	XB	20.252596
COLSTK	13.069850	THETAR	15.005430	THTSMR	5.7254320	XC	33.283940
PEDAL	14.900034	THETTR	20.012572	THTSTR	7.3125705	XP	41.622162
XAIM	0.0055921	XBIN	0.0252590	XCIN	3.3203940	XPIN	0.2075302
XBACTP	20.010036	XBACTI	0.4016204	PSTR.	0.0	PSTR	0.0
VXB	134.73502	THETAB	0.0023713	AA2P	3.0000710	QSTR	0.0
VYB	11.035479	PHIB	0.0	AA1P	-4.9277219	RSTR	0.0
VZB	10.942507	BETAWF	0.0209672	BB1P	0.12398932	TITR	0.0
P	0.0	GAML	0.0	AA2L	-3.6546031	HITR	0.0
Q	0.0	OMEGAT	1.0	AA1L	0.22103322	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.26611533	MMITR	0.0
ALPHF	-0.11700135	EKTX	1.3530013	EKAPX	0.92522026	LMITR	0.0
CHIPP	81.407457	EKTZ	1.6733499	EKAPZ	1.0000595	QMITR	0.0
EPTF	0.0	EPSMT	0.49404967	SIGMT	0.77579426	XITR	0.0
GAF	25.011474	RGMT	2.6717979	KGVI	0.82742074	YITR	0.0
MUXS	0.10059032	CFSIG	0.67400921E-1	ETOT	2.5559967	ZITR	0.0
MUYS	0.13490594E-1	CHSIG	-0.45087754E-2	DTOT	24.464993	LITR	0.0
MUZS	0.35409597E-2	CQMSIG	0.49613559E-6	TTR	715.37969	MITR	0.0
LAMBDA	-0.12007049E-1	NZ	0.99588114	HPMR	996.17597	NITR	0.0
OMSMMR	0.15059947E-1	VC	0.71525573E-5	RTWBLK	1.0	AXP	2.6026050
XMR	1504.1109	XBAR	-1645.1065	VXBDOT	-0.52799831E-2	AYP	-0.82909447E-2
YMR	-2917.50900	YBAR	247.52902	VYBDOT	-0.26125001E-2	AZP	-32.274789
ZMR	-13302.400	ZBAR	15657.032	VZBDOT	-0.71220677E-2	VXP	134.74842
LMR	-4100.9072	LBARM	-1740.0065	PDOT	-0.11152150E-2	VYP	11.235479
MMR	2001.5475	MBARM	-13400.365	QDOT	-0.25995718E-3	VZP	10.942367
NMR	19745.705	NBAR	20277.453	RDOT	0.15543259E-2	PSTR.	0.0
XHF	-379.19007	XT	-5.7527302	XTR	0.0	PSIUMG	0.0
YHF	-270.02225	YT	-135.94544	YTR	572.25702	QTR	0.0
ZHF	-32.493212	ZT	290.81541	ZTR	-244.59293	MADD	0.0
LHF	577.10535	LT	-239.12331	LTR	3037.0051	XADD	0.0
MHF	-2932.0402	MT	8452.9476	MTR	-7581.4225	YADD	0.0
NHF	-2034.7002	NT	3737.0155	NTR	-20029.692	ZADD	0.0
XHT	0.00540207	XVT	-0.5262029	ALFHTT	-4.5576486	NADD	0.0
YHT	-1.0391150	YVT	-132.37533	ALFVTT	4.8236894	LADD	0.0
ZHT	295.47943	ZVT	0.31637686	AABBIR	4.9200190		

UTTAS(576) 1-21-77 30-AUG-77 RUN 12.

WEIGHT	15952.2	FSCG	367.22070	V	120.0	PSITR2	0.0
IX	5527.0	WLCG	251.12000	DELS	-5.0	VXSTR.	0.0
IY	39934.7	RHO	0.23769700E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DELSWR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NBSS	4.0	TASIMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TASITR	-18.0	WLVT	273.0
KFW	15.0	PASCWT	839.0	XLMT	239.0	FSVT	695.0
FSHT	727.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.39167271	A1S	-1.2129221	IHT	-2.7425557	XA	46.302245
LNGSTK	9.5457302	B1S	0.9397682	IS	-3.0	XB	15.923165
COLSTK	15.528615	THETA0	15.528615	TH75MR	6.4286159	XC	37.678849
PEDAL	14.186272	THETTR	21.420611	TH75TR	7.9206113	XP	42.275805
XAIN	4.6502245	XBIN	1.5923185	XCIN	3.7673849	XPIN	2.2828339
XBACTP	17.985775	XBACTI	1.7085775	RSTR.	0.0	PSTR	0.0
VXB	158.65842	THETAB	3.7551854	AA0F	3.2914488	QSTR	0.0
VYB	11.334932	PHIM	0.0	AA1F	-5.6766042	RSTR	0.0
VZB	11.759275	BETAWF	3.6524593	BB1F	0.85688574E-1	TITR	0.0
P	0.0	GAML	0.0	AA0L	-4.1955404	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24368864	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.36765163	MHITR	0.0
ALFWF	0.62358862	EKTX	1.3568772	EKWFX	0.92614568	LHITR	0.0
CHITPP	82.011225	EKTZ	1.5464772	EKWFZ	1.0079667	QHITR	0.0
EKTW	0.0	EPSWT	0.40662459	SIGWT	0.64459287	XITR	0.0
QWF	37.421265	KQHT	0.87177979	KQVT	0.85128382	YITR	0.0
MUXS	0.23348405	CTSIG	0.67715189E-1	LTOT	3.5894232	ZITR	0.0
MUYS	0.15541255E-1	CHSIG	-0.47993751E-2	DTOT	24.499898	LITR	0.0
MUZS	0.56725529E-2	CQMSIG	0.49658173E-6	TTR	835.48365	MITR	0.0
LAMBMR	-0.94297139E-2	NZ	0.99829374	HPMR	1143.0445	NITR	0.0
DWSHMR	0.12532574E-1	VL	0.71529573E-5	KTRBLK	1.0	AXP	2.0879937
XMR	1934.2907	HBAR	-1113.5157	VXBDOT	-0.18268357E-1	AYP	-0.13686899E-1
YMR	-240.92497	JBAR	248.92497	VYBDOT	-0.15068436E-2	AZP	-32.113993
ZMR	-15631.157	TBAR	15712.190	VZBDOT	-0.75081416E-2	VXP	168.63840
LMR	-4591.5064	LBARM	-2282.7949	PDOT	-0.18776357E-2	VYP	11.338930
MMR	-275.42619	MBARM	-15472.920	QDOT	-0.21556128E-3	VZP	11.069275
NMR	22597.296	QBAR	23267.005	RDOT	0.38398869E-2	RSTR.	0.0
XWF	-894.15152	XT	-24.652875	XTR	0.0	PSIDMG	0.0
YWF	-359.46734	YT	-177.49827	YTR	785.15820	BTR	2.0
ZWF	-144.04275	ZT	452.83404	ZTR	-285.77404	MADD	0.0
LWF	729.95563	LT	-317.63056	LTR	4452.2215	XADD	0.0
MWF	-3716.5296	MT	12837.441	MTR	-8854.2321	YADD	0.0
NWF	-3179.4295	NT	4955.2184	NTR	-24326.756	ZADD	0.0
XHT	-13.914571	XVT	-10.734204	ALFHTT	-4.6349722	NADD	0.0
YHT	-1.9585235	YVT	-175.55777	ALFVTT	3.8434534	LADD	0.0
ZHT	452.47937	ZVT	0.35467990	AABB1F	5.6772969		

UTIAS(N/S)   1-21-77   30-AUG-77   RUN 13.

WEIGHT	[illegible]	FSCG	302.20000	V	128.0	PSITR2	0.0
IX	5527.0	WLCG	231.10000	DELS	-5.0	VXSTR.	0.0
IY	[illegible]	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37220.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-15.0	PSTR.	0.0
OMEGTR	[illegible]	NSSS	5.0	THSTTR	-18.0	XLVT	273.0
KFH	13.0	PASCNT	550.0	WLHT	234.0	FSVT	695.0
FSHT	702.32000	SHT	45.0	SVT	32.300000	GSTR.	0.0
LATSTK	-0.57764790	AIS	-1.4221863	IHT	-4.3666375	XA	45.163450
LNGSTK	11.336920	BIS	11.190500	IS	-3.0	XB	9.1557550
COLSTK	17.766500	THETAO	17.766506	TH75MR	7.6265052	XC	45.166164
PEDAL	14.199025	THETTR	22.071709	TH75TR	9.3717295	XP	82.230203
XAIN	4.5755449	XHIN	0.91557550	XCIN	4.5166164	XPIN	2.2000002
XBACTP	9.4129520	XBACTI	0.94129520	RSTR.	0.0	PSTR	0.0
VXB	202.49522	THETAB	3.1146615	AA2F	3.1483049	QSTR	0.0
VYB	12.285364	PHIB	0.0	AA1F	-5.9695031	RSTR	0.0
VZB	11.018754	BETAHF	3.3536715	BB1F	-0.38145123E-1	TITR	0.0
P	0.0	GAMC	0.0	BB2L	-3.1009120	HITR	0.0
Q	0.0	OMGHAT	1.0	AA1L	0.27866519	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.50822947	MHITR	0.0
ALFHF	0.92574552	EKTX	1.4753161	EKHFX	0.91294520	LHITR	0.0
CHIPP	82.993785	EKTZ	1.6631150	EKHFZ	1.2490842	QHITR	0.0
EKTR	0.0	EPSHT	0.40353671	SIGHT	0.59024621	XITR	0.0
QHF	52.351779	KQHT	0.87177979	KQVT	0.83256069	YITR	0.0
MUXS	0.27917120	CTSIG	0.66338859E-1	LTOT	3.9736268	ZITR	0.0
MUYS	0.15946576E-1	CHSIG	-0.58604808E-2	UTOT	24.522757	LITR	0.0
MUZS	0.53457155E-3	CQHSIG	0.56442953E-6	TTR	1038.6886	MITR	0.0
LAMBMR	-0.49595478E-2	NZ	0.99992242	HPMR	1399.4235	NITR	0.0
DWSMR	0.16519419E-1	VL	0.0	KTRBLK	1.0	AXP	1.7222234
XMR	2101.3030	HBAR	-1313.4043	VXBDOT	-0.24087931E-1	AYP	-0.29969516E-1
YMR	-284.50495	JBAR	284.50996	VYBDOT	-0.12589746E-1	AZP	-32.142562
ZMR	-15763.223	TBAR	15955.965	VZBDOT	-0.15520505E-1	VXP	202.48502
LMR	-5107.7329	LBARM	-3227.7343	PDOT	-0.75022823E-2	VYP	12.285364
MMR	-4553.7145	MBARM	-10946.561	QDOT	-0.12529436E-4	VZP	11.018760
NMR	27511.590	QBAR	20465.268	RDOT	0.26418799E-2	RSTR.	0.0
XHF	-1235.4797	XT	-46.279939	XTR	0.0	PSIDMG	0.0
YHF	-452.57335	YT	-237.05546	YTR	976.12259	BTR	0.0
ZHF	-227.97545	ZT	727.31208	ZTR	-355.27952	MADD	0.0
LHF	911.76352	LT	-423.94961	LTR	5572.3821	XADD	0.0
MHF	-4414.9937	MT	27605.826	MTR	-11227.743	YADD	0.0
NHF	-4972.1295	NT	6615.0772	NTR	-32243.469	ZADD	0.0
XHT	-31.213525	XVT	-17.066314	ALFHTT	-5.3926506	NADD	0.0
YHT	-2.5762062	YVT	-234.38517	ALFVTT	3.4545221	LADD	0.0
ZHT	727.22545	ZVT	0.34565356	AABB1F	6.9595292		

WEIGHT	16450.0	FSCG	360.22700	V	142.0	PSITRZ	0.0
IX	5624.0	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	31225.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NBSS	4.0	TASTMR	-19.0	PSTR.	0.0
OMEGTR	124.62440	NSSS	5.0	TASITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	524.0	WLHT	234.0	FSVT	695.0
FSHT	700.43004	SHT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.93977245	AIS	-1.9499685	IHT	-5.6352485	XA	45.813922
LNGSTK	14.017223	BIS	14.095496	IS	-3.0	XB	0.46917517
COLSTK	17.415945	THETA0	19.413943	TH75MR	9.3339432	XC	55.837146
PEDAL	14.443535	THETTR	25.124568	TH75TR	11.624568	XP	41.672664
XAIN	4.3513922	XBIN	0.46917517E-1	XCIN	5.5837146	XPIN	2.2502653
XBACTP	-0.92536047	XBACTI	-0.92636047E-1	HSTR.	2.0	PSTR	0.0
VXM	236.34101	THETA0	2.5139881	AA0F	3.2257583	QSTR	0.0
VYB	14.124424	PHI0	0.0	AA1F	-6.6623431	RSTR	0.0
VZB	12.789802	BETAXP	3.3334875	BB1F	-2.31170425	TITR	0.0
P	0.0	GAML	0.0	AA0L	-6.5747689	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.32362018	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.69611372	MMITR	0.0
ALPHWF	0.90694785	EKTX	1.5330333	EKWFX	0.89288888	LMITR	0.0
CHITPP	79.555555	EKTZ	1.7061666	EKWFZ	1.0106466	UMITR	0.0
EKIH	0.0	EPSHT	0.46333487	SIGHT	0.59669379	XITR	0.0
QHF	14.035245	KWHT	0.87177979	KOVT	0.53266565	YITR	0.0
MUXS	0.32551083	CTSIG	0.69272393E-1	LTOT	4.0732371	ZITR	0.0
MUYS	0.14453371E-1	CHSIG	-0.71304429E-2	OTOT	24.536637	LITR	0.0
MUZS	-0.21795531E-2	CQMSIG	0.51815596E-6	TTR	1335.9474	MITR	0.0
LAMBMR	-0.11532563E-1	NZ	0.99821726	HPMR	1775.4738	NITR	0.0
DWSHMR	0.91329773E-2	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.5063642
XMR	2495.2657	MBAR	-1656.2649	VXBDOT	0.49614984E-1	AYP	0.19577234E-1
YMR	-319.58545	JBAR	319.88566	VYBDOT	0.81025200E-2	AZP	-32.094723
ZMR	-15763.555	TBAR	16073.514	VZBDOT	0.22139913E-1	VXP	236.34101
LMR	-7775.4681	LBARM	-4120.3284	PDOT	0.55233760E-2	VYP	14.124484
MMR	-17575.442	MBARM	-23467.699	QDOT	0.76995873E-2	VZP	12.789540
NMR	33592.913	QBAR	36142.298	RDOT	-0.14891885E-2	RSTR.	0.0
XMF	-1566.4555	XT	-77.312252	XTR	0.0	PSIDMG	0.0
YMF	-612.53083	YT	-319.21257	YTR	1235.4733	BTR	0.0
ZMF	-315.72764	ZT	1124.1202	ZTR	-456.95580	MADU	0.0
LMF	1212.5227	LT	-364.67784	LTR	7167.1211	XADU	0.0
MMF	-6405.0329	MT	31634.937	MTR	-14158.213	YADU	0.0
NMF	-5314.5971	NT	8987.0148	NTR	-35598.747	ZADU	0.0
XMT	-53.797442	XVT	-23.514329	ALFHTT	-6.2965649	NADU	0.0
YMT	-3.3534083	YVT	-315.28792	ALFVTT	3.3977208	LADU	0.0
ZMT	1123.3400	ZVT	0.27142167	AABB1F	5.6579494		

UTTAS(S76) 1-21-77 30-AUG-77 RUN 15.

WEIGHT	16457.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	5629.0	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.013999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2838.0	KCMT	234.0	PSVT	695.0
FSH	709.40000	SHT	45.0	SVT	32.500000	QSTR.	0.0
LAT..K	-1.2167364	A1S	-2.2362284	IMT	-5.9738625	XA	42.394147
LNGSTK	14.149999	B1S	14.452325	IS	-3.0	XB	0.0
COLSTK	20.375960	THETA0	20.375960	TH75MR	10.295960	XC	61.049755
PEDAL	14.599221	THETTR	26.474374	TH75TR	12.974374	XP	41.131011
XAIN	4.2394146	XBIN	0.0	XCIN	6.1049755	XPIN	2.2210168
XBALTP	-2.5643128	XBACTI	-0.25643128	HSTR.	0.0	PSTR	0.0
VXB	253.40028	THETAB	1.4773155	AA0F	3.3588818	QSTR	0.0
VYB	14.600918	PHIB	0.0	AA1F	-8.2157778	RSTR	0.0
VZB	6.5354840	BETAWF	3.2245664	BB1F	-0.40888388	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.4834654	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.35227622	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.69798340	MMITR	0.0
ALFWF	0.24420750E-1	EKTX	1.5286408	EKWFX	0.86708196	LMITR	0.0
CHITPP	78.825654	EKTZ	1.7195591	EKWFZ	1.0111743	QMITR	0.0
EKTR	0.0	EPSWT	0.40224566	SIGWT	0.56752371	XITR	0.0
QWF	80.047613	KGHT	0.87177979	KQVT	0.83318673	YITR	0.0
MUXS	0.34494099	CTSIG	0.71559172E-1	LTOT	2.5330423	ZITR	0.0
MUYS	0.20151716E-1	CHSIG	-0.64942716E-2	DTOT	29.232115	LITR	0.0
MUZS	-0.92910643E-2	CQHSIG	0.53953969E-6	TTR	1505.2819	MITR	0.0
LAMBMR	-0.18265817E-1	NZ	1.0013401	HPMR	2080.9661	NITR	0.0
DWSMMR	0.87947531E-2	VE	0.35762786E-5	KTRBLK	1.0	AXP	0.43562398
XMR	2373.5726	HBAR	-1506.8884	VXBDOT	-0.15019281E-1	AYP	0.74062321E-1
YMR	-356.54795	JBAR	356.54795	VYBDOT	0.44338694E-1	AZP	-31.541798
ZMR	-16501.216	TBAR	16604.123	VZBDOT	-0.55772972E-1	VXP	253.40028
LMR	-8649.3245	LBARH	-4522.8175	PDOT	0.23911131E-1	VYP	14.600918
MMR	-7901.2022	MBARH	-22166.687	QDOT	0.26742863	VZP	6.5354840
NMR	39422.024	QBAR	40811.672	RDOT	0.36045159E-2	RSTR.	0.0
XWF	-1904.5096	XT	-73.299666	XTR	0.0	PSIDMG	0.0
YWF	-675.22965	YT	-350.04880	YTR	1414.6074	BTR	2.0
ZWF	-187.40521	ZT	1544.5410	ZTR	-514.87601	MADD	0.0
LWF	1339.1402	LT	-636.80962	LTR	8675.5784	XADD	0.0
MWF	-9122.4668	MT	43772.880	MTR	-15952.575	YADD	0.0
NWF	-5990.3458	NT	9991.8663	NTR	-43629.254	ZADD	0.0
XHT	-45.622949	XVT	-27.676718	ALFHTI	-7.5986131	NADD	0.0
YHT	-5.1167345	YVT	-352.93215	ALFVTT	3.2762203	LADD	0.0
ZHT	1543.7559	ZVT	6.78508331	AAB01F	8.2259461		

UTTAS(S76) 1-21-77 30-AUG-77 RUN 16.

WEIGHT	16453.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	5629.0	WLCG	251.10000	DELS	-5.0	VXSIR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSIR.	0.0
IZ	37226.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	3524.0	WLMT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	GSTR.	0.0
LATSTK	-1.4420172	A1S	-2.4751901	IHT	-8.0	XA	40.984892
LNGSTK	14.149999	B1S	15.799999	IS	-3.0	XB	0.0
COLSTK	20.506920	THETA0	20.506920	TH75MR	10.426920	XC	52.668254
PEDAL	7.7457370	THETTR	19.779041	TH75TR	6.2790415	XP	60.127645
XAIN	4.0984892	XBIN	0.0	XCIN	6.2568254	XPIN	3.2468111
XBACTP	-2.1012616	XBACTI	-6.21012616	RSTR.	0.0	PSTR	0.0
VXB	253.20854	THETAB	2.6740756	AA7F	3.3631061	GSTR	0.0
VYB	0.0	PHIB	-3.6700091	AA1F	-9.7505700	RSTR	0.0
VZB	11.826510	BETAWF	0.0	BB1F	-0.23662853	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.5713495	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.38154542	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.83784506	MHITR	0.0
ALFWF	1.1853978	EKTX	1.5121666	EKWFX	0.88339333	LHITR	0.0
CHITPP	76.480567	EKTZ	1.7276333	EKWFZ	1.0185133	QHITR	0.0
EKIH	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	79.697067	KUHT	0.87177979	KUVT	0.84852815	YITR	0.0
MUXS	0.34952684	CTSIG	0.71818397E-1	LTOT	3.1340136	ZITR	0.0
MUYS	0.0	CHSIG	-0.81625965E-2	DTOT	25.935769	LITR	0.0
MUZS	-0.19892871E-2	CQMSIG	0.54021624E-6	TTR	1504.0901	MITR	0.0
LAMBMR	-0.10780106E-1	NZ	0.99615561	HPMR	2041.5954	NITR	0.0
DWSMMR	0.87988198E-2	VC	1.4812317	KTRBLK	1.0	AXP	1.1807983
XMR	2750.5097	HBAR	-1893.9956	VXBDOT	0.15291701E-1	AYP	1.9402344
YMR	-343.27141	JBAR	343.27141	VYBDOT	-0.74630825E-1	AZP	-31.471226
ZMR	-16443.548	TBAR	16571.458	VZBDOT	0.20443894E-1	VXP	253.20854
LMR	-6601.2200	LBARM	-3959.0881	PDOT	-0.37997759E-1	VYP	0.0
MMR	-14239.624	MBARM	-26183.517	QDOT	0.23936389	VZP	11.826510
NMR	40715.992	QBAR	41557.272	RDOT	-0.44977920E-2	RSTR.	0.0
XWF	-1902.0141	XT	-119.50514	XTR	0.0	PSIUMG	0.0
YWF	0.0	YT	-108.39442	YTR	1013.4874	BTR	0.0
ZWF	-289.36536	ZT	1674.2927	ZTR	-514.46836	MADD	0.0
LWF	0.0	LT	-194.53481	LTR	8069.1767	XADD	0.0
MWF	-7656.3658	MT	47399.750	MTR	-15939.944	YADD	0.0
NWF	0.0	NT	2973.9843	NTR	-43794.553	ZADD	0.0
XHT	-87.529334	XVT	-31.975627	ALFHTI	-8.2958316	NADD	0.0
YHT	0.0	YVT	-108.39442	ALFVTI	0.0	LADD	0.0
ZHT	1674.1276	ZVT	0.16509234	AABB1F	9.7534408		

UTTAS(370) 1-21-77 30-AUG-77 RUN 19.

WEIGHT	16457.0	FSCG	360.20000	V	1.0E-2	PSITRE	0.0
IX	5029.4	WLCG	251.10000	DELS	-5.0	VXSTR.	0.0
IY	39996.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37225.1	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.017977	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.02006	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	965.0	WLHT	234.0	FSVT	895.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	WSTR.	0.0
LATSTK	-0.15915024	A1S	-0.90784462	IHT	27.291733	XA	49.005311
LNGSTK	4.7004541	B1S	2.1156757	IS	-3.0	XB	33.079681
COLSTK	17.676974	THETA0	17.670974	TH75MR	7.5989743	XC	44.993590
PEDAL	22.455527	THETTR	31.095297	TH75TR	17.595297	XP	19.340724
XAIN	4.9023510	XBIN	3.3079681	XCIN	4.4993590	XPIN	1.0440039
XBALTP	39.945659	XBACTI	3.9986839	RSTR.	0.0	PSTR	0.0
VXB	0.16627120E-1	THETAB	5.2819958	AA0F	3.2894505	QSTR	0.0
VYB	0.0	PHIB	-2.7172532	AA1F	-2.2552748	RSTR	0.0
VZB	0.15557353E-2	BETAWF	0.0	BB1F	-1.0056420	TITR	0.0
P	0.0	GAML	0.0	AA0L	-5.6143962	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.30025055E-2	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.14244419	MHITR	0.0
ALFWF	-9.0500700	EKTX	-0.24966834	EKWFX	0.79995393E-5	LHITR	0.0
CHIFPP	-2.2250739	EKTZ	0.20085270	EKWFZ	0.11099360E-3	QHITR	0.0
EKTR	0.0	EPSWT	0.44999499	SIGWT	0.0	XITR	0.0
QWF	0.35003044E-6	KUHT	0.87177979	KUVT	0.84852813	YITR	0.0
MUXS	0.23240225E-4	C1SIG	0.65739276E-1	LTOT	-11.509086	ZITR	0.0
MUYS	0.0	CMSIG	-0.27773314E-2	UTOT	24.784320	LITR	0.0
MUZS	0.92013120E-6	CWMSIG	0.52038753E-6	TTR	1052.0420	MITR	0.0
LAMBMR	-0.53320840E-1	NZ	0.99450901	HPMR	1533.4303	NITR	0.0
DWSHMR	0.33324769E-1	VC	0.11053023E-3	KTHBLK	0.79599999	AXP	2.9737094
XMR	1441.7941	HBAR	-644.43386	VXBDOT	0.12015914E-1	AYP	1.5520525
YMR	-233.94700	JBAR	233.94700	VYBDOT	0.34033863E-1	AZP	-31.997351
ZMR	-15197.597	TBAR	15253.712	VZBDOT	-0.17806564E-3	VXP	0.16827120E-1
LMR	-5045.6180	LBARM	-2705.2632	PDOT	-0.24936977E-3	VYP	0.0
MMR	10956.360	MBARM	-6250.2357	QDOT	0.34140758E-4	VZP	0.15557353E-2
NMR	30636.911	QBAR	31213.424	RDOT	0.11260104E-3	RSTR.	0.0
XWF	-0.61137065E-5	XT	3.6076249	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-0.47444258E-6	YTR	408.67036	BTR	2.0
ZWF	0.54674995E-5	ZT	5.6128711	ZTR	-359.64726	MADD	0.0
LWF	0.0	LT	-0.86585769E-6	LTR	5644.0230	XADD	0.0
MWF	-0.14431045E-3	MT	164.26576	MTR	-11149.260	YADD	0.0
NWF	0.0	NT	0.13236947E-4	NTR	-30632.303	ZADD	0.0
XHT	3.6075250	XVT	-0.11082793E-6	ALFHTT	-11.565646	NADD	0.0
YHT	0.0	YVT	-0.47444258E-6	ALFVTT	0.0	LADD	0.0
ZHT	5.6125711	ZVT	0.89290813E-7	AAB01F	2.4693278		

WEIGHT	16452.0	FSCG	360.20000	V	40.0	PSITR2	0.0
IX	5629.0	WLCG	251.14300	DELS	-5.0	VXSTR.	0.0
IY	39995.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	37225.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	461.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.500000	USTR.	0.0
LATSTK	-1.5598425	A1S	-1.9331470	IHT	26.600257	XA	41.506922
LNGSTK	4.7000472	B1S	3.4656676	IS	-5.0	XB	33.392058
COLSTK	16.055267	THETAO	16.055267	TH75MR	5.9752877	XC	34.845549
PEDAL	15.522117	THETTR	22.512462	TH75TR	8.8124628	XP	38.295304
XAIN	4.1576927	XBIN	3.3392058	XCIN	3.4845548	XPIN	2.0678926
XBACTP	39.705254	XBACTI	3.9705254	RSTR.	0.0	PSTR	0.0
VXB	67.457605	THETAB	3.7189364	AA0F	3.1779836	QSTR	0.0
VYB	0.0	PHIB	-1.5755422	AA1F	-2.1689987	RSTR	0.0
VZB	4.3849944	BETAMF	0.0	BB1F	-0.57848507E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.4897695	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.17702205	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.93903679E-1	MHITR	0.0
ALFWP	-11.718845	EK1X	1.1667576	EKWFX	0.79902959	LHITR	0.0
CHITPP	76.624673	EK1Z	2.0471762	EKWFZ	1.0191791	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	6.8447255	KGHT	0.87177979	KGVT	0.84852815	YITR	0.0
MUXS	0.95233029E-1	CTSIG	0.67045795E-1	LTOT	-17.125224	ZITR	0.0
MUYS	0.0	CHSIG	-0.18135849E-2	DTOT	25.891920	LITR	0.0
MUZS	0.11781952E-2	CQMSIG	0.51048189E-6	TIR	753.10864	MITR	0.0
LAMBMR	-0.26527255E-1	NZ	0.99759151	HPMR	1099.8931	NITR	0.0
DWSHMR	0.29599403E-1	VC	0.96019508E-1	KTRBLK	1.0	AXP	2.0930748
XMR	1234.5620	HBAR	-420.81241	VXBDOT	0.84303659E-2	AYP	0.79567918
YMR	-312.07112	JBAR	312.07112	VYBDOT	0.28990786E-1	AZP	-32.094582
ZMR	-15512.317	TBAR	15556.869	VZBDOT	-0.20230166E-2	VXP	67.457605
LMR	-4024.7051	LBARM	-1106.5454	PDOT	0.85856363E-3	VYP	0.0
MMR	15096.267	MBARM	-5825.9296	QDOT	0.63204447E-3	VZP	4.3849944
NMR	21778.545	QBAR	22388.646	RDOT	0.16542086E-2	RSTR.	0.0
XWF	-194.43827	XT	-21.439468	XTR	0.0	PSIDMG	0.0
YWF	0.0	YT	-7.5839536	YTR	707.79963	BTR	2.0
ZWF	195.75456	ZT	-26.186270	ZTR	-257.61849	MADD	0.0
LWF	0.0	LT	-13.840715	LTR	4040.8161	XADD	0.0
MWF	-4322.4219	MT	-766.70634	MTR	-7981.8797	YADD	0.0
NWF	0.0	NT	211.59230	NTR	-21929.991	ZADD	0.0
XHT	-19.557734	XVT	-2.0517255	ALFHTT	0.99644804	NADD	0.0
YHT	0.0	YVT	-7.5839536	ALFVTT	0.0	LADD	0.0
ZHT	-27.159463	ZVT	0.98319264	AABB1F	2.1697700		

UTTAS(5/6)   1-21-77   30-AUG-77   RUN 45.

T.

WEIGHT	19902.0	PSCG	347.0	V	60.0	PSITR2	0.0
IX	[illegible]	ALCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17520222E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	[illegible]	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NMSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	[illegible]	NSSS	5.0	THSITR	-10.0	RLVT	273.0
KFR	15.0	PASCNT	1047.0	RCMT	250.0	FSVT	695.0
RSMT	[illegible]	SMT	45.0	SVT	32.500000	QSTR.	0.0
LATSTK	-0.95184725	AMS	-1.0429065	IMT	23.249500	XA	44.250954
LNGSTK	[illegible]	HIS	1.5549009	IS	-3.0	XB	40.715396
COLSTK	[illegible]	THETAR	19.111643	TH75MR	9.0316430	XC	53.947770
PEDAL	[illegible]	THETTR	26.571673	TH75TR	15.071673	XP	31.110827
XAIR	[illegible]	YEIN	4.2713390	XCIN	5.3947709	XPIN	1.0799429
XHACTR	[illegible]	XHACTI	4.3927984	RSTR.	0.0	PSTR	0.0
XB	[illegible]	THETAB	-0.59501150	AA0F	4.2224658	QSTR	0.0
YB	13.365125	PHIB	0.0	AA1F	2.2513129	RSTR	0.0
ZB	[illegible]	BETAMF	6.1526022	BB1F	0.10012790	TITR	0.0
[illegible]	0.0	GAMC	0.0	AA2L	-5.0299200	HITR	0.0
[illegible]	0.0	OMGPAT	1.0	AA1C	0.12522320	JITR	0.0
[illegible]	0.0	PSIDOT	0.0	B01L	-0.26036830	MMITR	0.0
[illegible]	-11.51[illegible]	EATX	1.1276329	EKMFX	0.05302900	LMITR	0.0
[illegible]	75.9[illegible]	EATZ	2.0766454	EKMFZ	1.0141973	OMITR	0.0
[illegible]	0.0	EPSMT	0.51150042	SIGMT	1.0229276	XITR	0.0
[illegible]	13.[illegible]	KWMT	0.07177979	KWVT	2.7990650	YITR	0.0
MUXS	[illegible]	CISIG	0.11151261	ETOT	-14.640305	ZITR	0.0
MUYS	[illegible]	CMSIG	0.52404672E-2	DTOT	27.532203	LITR	0.0
MUZS	[illegible]	COMSIG	0.92165552E-6	TTR	936.96556	MITR	0.0
LAMBMR	[illegible]	NZ	0.99990986	HPMR	1375.3577	NITR	0.0
OMSMMR	[illegible]	VC	0.17001593E-5	KIROLK	1.0	AXP	-0.33314698
XMM	[illegible]	MBAR	096.19682	VXBDOT	0.15145646E-3	AYP	-0.59523666E-2
YMM	-579.31793	ZBAR	579.31793	VYBDOT	-0.50919094E-2	AZP	-32.172057
ZMM	[illegible]	TBAR	19041.485	VZBDOT	-0.21974851E-2	VXP	101.38393
LMM	[illegible]	LBARM	-764.22792	PDOT	-0.15366353E-2	VYP	13.366123
MMM	[illegible]	MBARM	6364.6936	QDOT	-0.31161215E-3	VZP	-1.0529066
NMM	[illegible]	NBAR	27945.009	RDOT	-0.53533728E-3	RSTR.	0.0
XAF	[illegible]	XT	6.0424021	XTR	0.0	PSIDMG	0.0
YAF	[illegible]	YT	-60.646023	YTR	080.52465	BTR	0.0
ZAF	[illegible]	ZT	24.596782	ZTR	-320.48545	MADD	0.0
LAF	[illegible]	LT	-176.22645	LTR	5378.0527	XADD	0.0
MAF	-3935.5747	MT	845.07931	MTR	-10262.241	YADD	0.0
NAF	-1729.[illegible]	NT	2540.6059	NTR	-20250.172	ZADD	0.0
XT	[illegible]	XVT	1.0196760	ALFMTT	-0.63943266	NADD	0.0
YT	[illegible]	YVT	-19.471514	ALFVTT	0.1207066	LADD	0.0
ZT	[illegible]	ZVT	-0.45162415	AABS1F	2.2087314		

UTTAS(576)   1-21-77   30-AUG-77   RUN 46.

EIGHT	19982.7	FSCG	347.0	V	82.0	PSITR2	0.0
X	6200.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
Y	41587.0	RHO	0.17588822E-2	VSOUND	1077.0	VYSTR.	0.0
Z	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
IMEGMR	27.619999	NMSS	4.0	TWSTMR	-18.0	PSTR.	0.0
IMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
FR	15.0	PASCNT	1135.0	WLHT	234.0	FSVT	695.0
SHT	782.40220	SHT	45.0	SVT	32.500000	USTR.	0.0
ATSTR	-0.91929929	A1S	-1.0898781	IHT	11.251416	XA	44.255630
NGSTR	4.2244669	B1S	3.6427660	IS	-3.0	XB	35.072554
DLSTR	19.128320	THETA0	19.128320	TH75MR	9.0485208	XC	54.052086
EUAL	16.476275	THETTR	26.048260	TH75TR	13.540260	XP	35.944013
AIN	4.4255630	XFIN	3.5072558	XCIN	5.4052086	XFIN	1.9409262
BALTP	37.462956	XBALT1	3.7468956	PSTR.	0.0	PSTP	0.0
XB	135.19585	THETAB	-0.11521816	AA0F	4.1964279	QSTR	0.0
YB	11.883257	PHIB	0.0	AA1F	1.1213078	RSTR	0.0
ZB	-0.27184675	BETAWF	4.4136710	BB1F	0.26238413	TITR	0.0
	0.0	GAML	0.0	AA0L	-4.0593329	HITR	0.0
	0.0	OMGFAT	1.0	AA1L	0.17135406	JITR	0.0
	0.0	PSIDOT	0.0	BB1L	-0.10569161	MHITR	0.0
LFWF	-7.0875975	EKTX	1.2437349	EKWFX	0.90467785	LHITR	0.0
HITPP	68.354655	EKTZ	1.9312140	EKWFZ	1.0096401	UHITR	0.0
KTR	0.0	EPSWT	0.4941367E	SIGWT	0.77680612	XITR	0.0
WF	22.579776	KUWT	2.87177979	KQVI	0.62746034	YITR	0.0
UXS	0.10822170	CTSIG	0.11224489	LTOT	-6.3100004	ZITR	0.0
UYS	0.16281276E-1	CHSIG	0.34612781E-2	OIOI	25.066622	LITR	0.0
UZS	-0.12134523E-1	COMSIG	0.91597212E-6	TTR	920.80049	MITR	0.0
AMDMR	-0.55374406E-1	NZ	1.0000794	HPMR	1324.2941	NITR	0.0
ASHMR	0.25245192E-1	VC	0.44723485E-6	KTRBLK	1.0	AXP	-0.53651421E-1
WR	412.45178	HBAR	591.45517	VXDDOT	0.10536186E-1	AYP	0.29604051E-2
WR	-523.45622	JBAR	523.43820	VYDDOT	-0.17747492E-2	AZP	-32.170465
WR	-19169.366	TBAR	19166.390	VZDDOT	-0.55439591E-2	VXP	135.19585
WR	-5513.2162	LBARM	-979.72661	PDOT	0.12601801E-2	VYP	11.883257
WR	10450.287	MBARM	3259.1422	QDOT	-0.12116365E-3	VZP	-0.27184676
WR	26602.327	QBAR	28956.398	RDOT	-0.68540703E-3	RSTR.	0.0
WF	-476.19266	XT	33.781445	XTR	0.0	PSIDMG	0.0
WF	-230.93688	YT	-183.31815	YTR	884.03838	BTR	2.0
WF	194.16429	ZT	266.58944	ZTR	-314.70322	MADU	0.0
WF	466.55166	LT	-225.49591	LTR	5261.8167	XADU	0.0
WF	-6313.4659	MT.	5950.9672	MTR	-10096.728	YADU	0.0
WF	-1887.6879	NT	2990.7753	NTR	-27742.479	ZADU	0.0
WT	36.629965	XVT	-2.8464622	ALFHTT	-3.4848125	NADU	0.0
WT	-1.3688753	YVT	-181.98788	ALFVTT	3.2930981	LADU	0.0
WT	199.64449	ZVT	0.74494942	AA5B1F	1.1515974		

UTTAS(S/A) 1-21-77 30-AUG-77 RUN 47.

IGHT	19900.0	FSCU	347.0	V	100.0	PSITRZ	0.0
:	5260.0	WLLG	246.29999	DELS	-5.0	VXSTR.	0.0
.	41587.0	RHO	2.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
:	30224.0	TIME	4.20000000E-1	DELSMR	0.0	VZSTR.	0.0
IEGMR	27.019999	NOSS	4.0	TWSIMR	-19.0	PSTR.	0.0
IEGTR	124.62240	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
R	15.0	P*SCRT	1280.0	WCMT	234.0	FSVT	695.0
MT	720.40000	SMT	45.0	SVT	32.300000	USTR.	0.0
TSTR	-1.0540129	A1S	-2.0001445	IMT	2.3351569	XA	43.412419
IGSTR	6.951208/6	B1S	6.6039118	IS	-5.0	XB	25.402517
LSTR	19.665743	THETA0	19.665743	TH75MR	9.5657437	XC	57.410899
DAL	16.224225	THETTR	27.247118	TH75TR	13.747118	XP	36.626119
IN	0.3412018	XCIN	2.5402517	XCIN	5.7410898	XPIN	1.9777590
ACTP	25.271161	XMALTI	2.6271161	RSTR.	0.0	PSTR	0.0
E	168.95892	THETA0	0.91281639	AA0F	4.2035015	USTR	0.0
B	12.237627	PHI0	0.0	AA1F	-0.68216248	RSTR	0.0
B	2.0921558	BETAMF	3.8184485	BB1F	0.24792026	TITR	0.0
	0.0	GAML	0.0	AA0L	-5.3807969	HITR	0.0
	0.0	CHGRAT	1.0	AA1L	0.25774978	JITR	0.0
	0.0	PSIDOT	0.0	BB1L	-0.71092743E-1	MHITR	0.0
PWF	-3.0712278	EKTX	1.1050304	EKWFX	0.92844890	LHITR	0.0
ITPP	82.188378	EKTZ	1.6081750	EKWFZ	1.0078116	QHITR	0.0
TR	0.0	EPSWT	0.46818448	SIGWT	0.67204698	XITR	0.0
F	29.517500	KGMT	0.87177979	KGVT	0.85033271	YITR	0.0
XS	0.23292279	CTSIG	0.11349330	ETOT	-2.1101660	ZITR	0.0
YS	0.16879992E-1	CPSIG	0.35178766E-3	DTOT	24.343689	LITR	0.0
ZS	-0.84499725E-2	CQMSIG	0.91751612E-6	TTR	1028.4126	MITR	0.0
QMR	-0.29115949E-1	NZ	0.99977584	HPMR	1456.2287	NITR	0.0
SMPR	0.22624977E-1	VE	0.35762786E-5	KIRBLK	1.0	AXP	0.51048658
R	954.24155	HOAR	60.069974	VXBDOT	-0.35892449E-2	AYP	0.17652251E-2
R	-531.36194	JOAR	531.36194	VYBDOT	0.51436935E-3	AZP	-32.169573
R	-19354.781	TOAR	19379.761	VZBDOT	-0.60821778E-3	VXP	168.95892
R	-5124.5154	LOARM	-1403.6005	PDOT	-0.27110501E-4	VYP	12.237027
R	2422.2561	MOARM	-1637.0693	QDOT	-0.77405030E-3	VZP	2.6921338
R	29257.622	NOAR	29641.962	RDOT	-0.36275180E-3	HBTR.	0.0
:	-694.64055	X1	42.345355	XTR	0.0	PSIDMG	0.0
:	-295.27598	Y1	-139.51956	YTR	966.46366	BTR	2.0
:	169.69259	Z1	513.13250	ZTR	-351.76469	MADD	0.0
:	524.55990	L1	-303.22637	LTR	5903.6372	XADD	0.0
:	-6340.0074	M1	15177.425	MTR	-11285.783	YADD	0.0
:	-2311.3134	N1	4047.0649	NTR	-31007.375	ZADD	0.0
:	49.350770	XVT	-7.0054230	ALFMTT	-6.5502275	NADD	0.0
:	-221.99001	YVT	-137.34274	ALFVTT	4.1794550	LADD	0.0
:	512.03715	ZVT	1.0951737	AAB01F	2.72581685		

WEIGHT	19900.0	FSCG	347.0	V	120.0	PSITR2	0.0
IX	6268.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1426.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.4515740	A1S	-2.5180297	IMT	1.0064800	XA	40.927662
LNGSTK	0.7152465	B1S	0.2158732	IS	-3.0	XB	19.204075
COLSTK	20.833939	THETA0	20.833939	TM75MR	10.753939	XC	64.712119
PEDAL	17.947529	THETTR	30.372256	TM75TR	16.872256	XP	31.848719
XAIN	4.0927662	XBIN	1.9204075	XCIN	6.4712119	XPIN	1.7197861
XBACTP	18.199071	XBACTI	1.8199071	RSTR.	0.0	PSTR	0.0
VXB	282.79870	THETAB	-0.17211994	AA0F	4.1757097	QSTR	0.0
VYB	13.033174	PHIB	0.0	AA1F	-0.64405518	RSTR	0.0
VZB	-0.60915195	BETAWF	3.4678801	BB1F	0.24858512	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.9727763	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.33969220	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.12796733	MHITR	0.0
ALFWF	-3.5290074	EKTX	1.1534915	EKWFX	0.93457266	LMITR	0.0
CHITPP	82.659437	EKTZ	1.7967266	EKWFZ	1.0073405	QMITR	0.0
EKTR	0.0	EPSHT	0.40467800	SIGWT	0.61033284	XITR	0.0
QWF	40.563635	KQHT	0.87177979	KQVT	0.83202818	YITR	0.0
MUXS	0.27928284	CTSIG	0.11394292	LTOT	-1.8478887	ZITR	0.0
MUYS	0.17978117E-1	CHSIG	0.95150750E-3	DTOT	24.273559	LITR	0.0
MUZS	-0.15478649E-1	COMSIG	0.91144987E-6	TTR	1329.8872	MITR	0.0
LAMBMR	-0.32771971E-1	NZ	0.99998516	HPMR	1873.8374	NITR	0.0
DWSMMR	0.17293321E-1	VC	0.13411049E-5	KTRBLK	1.0	AXP	-0.11447895
XMR	856.00186	HBAR	162.47593	VXBDOT	-0.15454646E-1	AYP	0.36919809E-2
YMR	-896.56584	JBAR	896.56584	VYBDOT	0.26548098E-2	AZP	-32.160562
ZMR	-19436.803	TBAR	19456.476	VZBDOT	-0.99792160E-3	VXP	282.79870
LMR	-7886.8428	LBARM	-1735.7143	PDOT	-0.48892445E-3	VYP	13.033174
MMR	3217.4678	MBARM	-1467.5361	QDOT	0.14413378E-2	VZP	-0.60915195
NMR	37645.441	QBAR	30142.510	RDOT	-0.53617964E-3	RSTR.	0.0
XWF	-957.60977	XT	35.104295	XTR	0.0	PSIDMG	0.0
YWF	-368.44471	YT	-183.19337	YTR	1249.7781	BTR	2.0
ZWF	134.18866	ZT	669.78173	ZTR	-454.88293	MADD	0.0
LWF	849.78883	LT	-399.30585	LTR	7634.5286	XADD	0.0
MWF	-8362.0562	MT	19798.698	MTR	-14594.160	YADD	0.0
NWF	-2881.5333	NT	5313.7578	NTR	-48897.848	ZADD	0.0
XHT	46.897896	XVT	-11.792800	ALFMTT	-6.4809887	NADD	0.0
YHT	-2.5530659	YVT	-180.63970	ALFVTT	3.6848726	LADD	0.0
ZHT	668.24857	ZVT	1.5331625	AABB1F	0.69836341		

UTTAS(876)   1-21-77   30-AUG-77   RUN 50.

WEIGHT	19900.0	PSCG	347.0	V	140.0	PSITR2	0.0
IX	6268.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	5335.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	BHT	45.0	SVT	32.300000	QSTH.	0.0
LATSTK	-5.0947994	A1S	-7.3700114	IHT	-2.5845345	XA	13.157503
LNGSTK	14.149999	B1S	11.596751	IS	-3.0	XB	0.0
COLSTK	24.008271	THETA0	24.008271	TH75MR	14.728271	XC	89.551699
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	1.3157503	XBIN	0.0	XCIN	8.9551699	XPIN	0.0
XBACTP	-2.9952616	XBACTI	-0.29952616	RSTR.	0.0	PSTR	0.0
VXB	236.50000	THETAB	-1.5777764	AA0F	4.1633709	QSTR	0.0
VYB	-30.893740	PHIB	-7.2998511	AA1F	-1.4350980	RSTR	0.0
VZB	-6.5145040	BETAWF	-7.1335482	BB1F	0.22234580	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-13.668769	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.79183796	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.85519365E-1	MHITR	0.0
ALFWF	-4.0327025	EKTX	1.2669096	EKWFX	0.91812247	LHITR	0.0
CHITPP	81.394838	EKTZ	1.0045243	EKWFZ	1.0086059	QHITR	0.0
EKTR	0.0	EPSWT	0.39146580	SIGWT	-1.1445599	XITR	0.0
QWF	54.217793	KQHT	0.87177979	KQVT	0.84474472	YITR	0.0
MUXS	0.32528902	CTSIG	0.11490000	LTOT	-0.55918022	ZITR	0.0
MUYS	-0.42615195E-1	CHSIG	0.23110274E-2	DTOT	25.860128	LITR	0.0
MUZS	-0.20046417E-1	COMSIG	0.90075064E-6	TTR	2355.2785	MITR	0.0
LAMBMR	-0.40900902E-1	NZ	0.99247831	HPMR	3617.7676	NITR	0.0
DWSMMR	0.14854484E-1	VC	-230.68007	KTRBLK	1.0	AXP	-1.1709210
XMR	632.74963	HBAR	394.62258	VXBDOT	-0.37555442E-1	AYP	4.0836748
YMR	-1140.1504	JBAR	1140.1504	VYBDOT	0.34430867E-2	AZP	-31.842940
ZMR	-19612.246	TBAR	19620.006	VZBDOT	-0.34134600E-1	VXP	236.50000
LMR	-12383.712	LBARM	-1679.3844	PDOT	-0.53451599E-3	VYP	-30.893740
MMR	3864.4991	MBARM	-3841.3992	QDOT	0.13654170	VZP	-6.5145040
NMR	72867.638	QBAR	73640.719	RDOT	0.13637086E-2	RSTR.	0.0
XWF	-1277.2857	XT	96.683241	XTR	0.0	PSIDMG	0.0
YWF	1041.2901	YT	319.67490	YTR	2213.4024	BTR	2.0
ZWF	120.47104	ZT	1352.9633	ZTR	-805.61410	MADD	0.0
LWF	-1022.6229	LT	678.87369	LTR	13521.012	XADD	0.0
MWF	-11472.569	MT	39933.217	MTR	-25846.787	YADD	0.0
NWF	7474.0097	NT	-9275.0585	NTR	-71013.320	ZADD	0.0
XHT	93.348147	XVT	3.3350944	ALFHTT	-9.7356432	NADD	0.0
YHT	9.9781473	YVT	309.70475	ALFVTT	-7.4074720	LADD	0.0
ZHT	1353.3817	ZVT	-0.41842602	AABW1F	1.4522203		

UTTAS(876)   1-21-77   30-AUG-77   RUN 49.

WEIGHT	19900.0	PSCG	347.0	V	140.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MH	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	6300.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-2.7937071	A1S	-4.1247063	IHT	1.3654796	XA	32.538830
LNGSTK	13.317537	B1S	10.356337	IS	-3.0	XB	2.9415645
COLSTK	23.401544	THETAS	23.401544	TH75MR	13.321544	XC	80.759654
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	3.2538830	XBIN	0.29415644	XCIN	8.0759654	XPIN	0.0
XBACTP	-0.27401334	XBACTI	-0.27401334E-1	RSTR.	0.0	PSTR	0.0
VXB	236.43033	THETAB	-2.1640332	AA0F	4.1463573	QSTR	0.0
VYB	14.601174	PHIB	0.0	AA1F	-0.36072528E-2	RSTR	0.0
VZB	-8.9369413	BETAWF	3.3951360	BB1F	0.23019871	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-11.040839	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.54515992	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.27588845	MMITR	0.0
ALFWF	-4.5980224	EKTX	1.1571344	EKWFX	0.92984707	LMITR	0.0
CHITPP	82.234392	EKTZ	1.8295511	EKWFZ	1.0077656	QHITR	0.0
EKTR	0.0	EPSHT	0.40395136	SIGHT	0.59754400	XITR	0.0
QWF	53.687619	KQHT	0.87177979	KQVT	0.83236945	YITR	0.0
MUXS	0.32502040	CTSIG	0.11461401	LTOT	-3.1595724	ZITR	0.0
MUYS	0.20251307E-1	CHSIG	0.31221903E-2	DTOT	24.259027	LITR	0.0
MUZS	-0.29578511E-1	CQMSIG	0.90504301E-6	TTR	1966.9571	MITR	0.0
LAMBMR	-0.44277296E-1	NZ	0.99871239	MPMR	2926.9625	NITR	0.0
DWSMMR	0.14090784E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	-1.2240703
XMR	491.07795	HBAR	533.13370	VXBDOT	0.18355520E-1	AYP	-0.23146068
YMR	-1120.0393	JBAR	1120.0393	VYBDOT	0.13016841E-1	AZP	-32.133720
ZMR	-19570.629	TBAR	19571.070	VZBDOT	0.19444039E-1	VXP	236.43033
LMR	-11725.860	LBARH	-1925.6091	PDOT	0.11060001E-1	VYP	14.601174
MMR	7327.9348	MBARH	402.20829	QDOT	-0.17022860E-2	VZP	-8.9369413
NMR	50027.744	QBAR	59579.100	RDOT	0.74430744E-1	RSTR.	0.0
XWF	-1250.5981	XT	56.611196	XTR	0.0	PSIDMG	0.0
YWF	-477.41494	YT	-242.02099	YTR	1040.4725	DTR	2.0
ZWF	271.39555	ZT	900.60250	ZTR	-672.79027	MADD	0.0
LWF	860.05697	LT	-529.49770	LTR	11291.765	XADD	0.0
MWF	-12602.717	MT	26869.343	MTR	-21585.354	YADD	0.0
NWF	-3747.5035	NT	7043.3014	NTR	-59305.159	ZADD	0.0
XHT	73.234040	XVT	-16.622052	ALFHTT	-6.6312555	WADD	0.0
YHT	-3.3166021	YVT	-239.50439	ALFVTT	3.5440053	LADD	0.0
ZHT	986.26735	ZVT	2.3351552	AABB1F	0.23822603		

WEIGHT	19900.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0
IX	6260.0	WLCG	246.24999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019994	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASLNT	1955.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.31019667E-1	A1S	-1.1392193	IHT	34.0	XA	49.806127
LNGSTK	5.9019667	B1S	2.3931239	IS	-5.0	XB	20.862329
COLSTK	21.237278	THETA0	21.237278	TH75MR	11.157278	XC	67.232993
PEDAL	29.430000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.9006126	XBIN	2.0062328	XCIN	6.7232992	XPIN	0.0
XBACTP	35.964103	XBACTI	3.5964103	RSTR.	0.0	PSTR	0.0
VXB	0.16013964E-1	THETAB	5.7981446	AA0F	4.3546563	QSTR	0.0
VYB	0.0	PHIB	-2.4021572	AA1F	-2.6074854	RSTR	0.0
VZB	0.17062187E-2	BETAWF	0.0	BB1F	-1.2016031	TITR	0.0
P	0.0	GAML	0.0	AA0L	-7.9267669	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.10031473E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.21602568	MMITR	0.0
ALFWF	-12.449623	EKTX	-0.22019296	EKWFX	0.79995393E-5	LHITR	0.0
CHITPP	-2.5834756	EKTZ	0.16975012	EKWFZ	0.11099362E-3	QHITR	0.0
EKTH	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	0.27101449E-6	KUMT	0.07177979	KUVT	0.84852013	YITR	0.0
MUXS	0.23202966E-4	CTSIG	0.10930117	LTOT	-18.679096	ZITR	0.0
MUYS	0.0	CMSIG	-0.55726834E-2	QTOT	26.245617	LITR	0.0
MUZS	0.11363569E-5	CWMSIG	0.95059932E-6	TTR	1134.8923	MITR	0.0
LAMBMR	-0.68420956E-1	NZ	0.99402036	HPMR	2148.4677	NITR	0.0
DWSHMR	0.68422066E-1	VC	0.91743423E-4	KTRBLK	0.79599999	AXP	3.1422566
XMR	1926.9540	HBAR	-951.57102	VXBDOT	0.11760014E-2	AYP	0.69492781
YMR	-269.23367	JBAR	269.23367	VYBDOT	0.22517277E-2	AZP	-31.981185
ZMR	-10587.040	TBAR	18663.867	VZBDOT	-0.23755512E-3	VXP	0.16013964E-1
LMR	-7184.6669	LBARM	-3213.6656	PDOT	0.90533240E-3	VYP	0.0
MMR	11960.504	MBARM	-7191.7830	QDOT	0.19538834E-4	VZP	0.17062187E-2
NMR	43056.751	QBAR	43732.689	RDOT	0.26198663	RSTR.	0.0
XWF	-0.50600340E-5	XT	0.86148039	XTR	0.0	PSIDMG	2.2
YWF	0.0	YT	-6.34937338E-6	YTR	1066.5292	BTR	2.0
ZWF	0.65487810E-5	ZT	1.3654773	ZTR	-380.18566	MADD	0.0
LWF	0.0	LT	-0.77735580E-6	LTR	6515.1079	XADD	0.0
MWF	-0.13596191E-5	MT	39.594299	MTR	-12027.285	YADD	0.0
NWF	0.0	NT	0.97475174E-5	NTR	-33244.631	ZADD	0.0
XMT	0.86140040	XVT	-0.03785925E-7	ALFHTT	-2.9223661	NADD	0.0
YMT	0.0	YVT	-0.34937338E-6	ALFVTT	0.0	LADD	0.0
ZMT	1.3654773	ZVT	0.62959520E-7	AADDIF	2.6789603		

UTTAS(S76)   1-21-77   16-SEP-77   RUN 29.

WEIGHT	19902.0	FSCG	360.20000	V	62.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFW	15.0	PASCNT	755.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SWT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1159414	A1S	-1.9950284	IHT	23.092847	XA	43.025365
LNGSTK	6.5124020	B1S	5.0023202	IS	-3.0	XB	27.692642
COLSTK	19.014024	THETA0	19.014024	TH75MR	8.9548248	XC	53.342655
PEDAL	10.077509	THETTR	20.919299	TH75TR	15.419299	XP	29.025044
XAIN	4.3025365	XBIN	2.7692642	XCIN	5.3342655	XPIN	1.6105105
XBACTP	32.228000	XBACTI	3.2228000	RSTR.	0.0	PBTR	0.0
VXB	101.26533	THETAB	2.8687927	AA0F	4.1723986	QSTR	0.0
VYB	16.873409	PHIB	0.0	AA1F	-1.4466630	RSTR	0.0
VZB	5.0747045	BETAWF	7.8365960	BE1F	-0.31404817E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.0546674	HITR	0.0
Q	0.0	OMGHAT	1.0	AA1L	0.23339599	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.13486923E-1	MHITR	0.0
ALFWF	-8.0060320	EKTX	1.2481828	EKWFX	0.84913422	LHITR	0.0
CHITPP	75.375059	EKTZ	1.9573818	EKWFZ	1.0146241	GHITR	0.0
EKTR	0.0	EPSWT	0.52836595	SIGWT	1.2317378	XITR	0.0
QWF	13.415935	KWHT	2.87177979	KGVT	0.76018585	YITR	0.0
MUXS	0.13985068	CTSIG	0.11017923	LTOT	-8.5255324	ZITR	0.0
MUYS	0.23275580E-1	CHSIG	-0.21221149E-2	DTOT	27.409134	LITR	0.0
MUZS	-0.32033067E-3	CQMSIG	0.91072714E-6	TIR	942.75573	MITR	0.0
LAMBMR	-0.32743455E-1	NZ	0.99906731	HPMR	1376.4220	NITR	0.0
DWSHMR	0.32423124E-1	VC	0.0	KTRBLK	1.0	AXP	1.6483382
XMR	1346.4484	HBAR	-362.36457	VXBDOT	0.36548016E-1	AYP	0.12484232E-1
YMR	-506.95963	JBAR	506.95963	VYBDOT	0.57332266E-2	AZP	-32.144595
ZMR	-10767.593	TBAR	10813.802	VZBDOT	-0.12719276E-1	VXP	101.26533
LMR	-5770.6336	LBARH	-1282.4614	PDOT	0.20935727E-2	VYP	16.873409
MMR	19011.970	MBARH	-3931.1383	QDOT	-0.59425584E-3	VZP	5.0747045
NMR	27073.060	QBAR	20017.474	RDOT	-0.11940112E-2	RSTR.	0.0
XWF	-311.33442	XT	-58.130318	XTR	0.0	PSIDMG	0.0
YWF	-279.28342	YT	-96.322052	YTR	865.96648	BTR	2.0
ZWF	163.95785	ZT	-144.09450	ZTR	-322.46605	MADD	0.0
LWF	501.70795	LT	-287.34297	LTR	5412.1039	XADD	0.0
MWF	-4006.9866	MT	-4158.6244	MTR	-9991.0731	YADD	0.0
NWF	-2301.6126	NT	2688.3508	NTR	-27452.194	ZADD	0.0
XHT	-62.648832	XVT	4.5105143	ALFWTT	3.5041153	NADD	0.0
YHT	-2.1457222	YVT	-94.176329	ALFVTT	10.796485	LADD	0.0
ZHT	-142.40653	ZVT	-1.6079764	AABB1F	1.4470047		

UITAS(576)   1-21-77   16-SEP-77   RUN 30.

WEIGHT	19902.0	FSCG	360.20000	V	80.0	PSIIR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17580000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.219999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.02000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1343.0	WLMT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.0331650	A1S	-1.9074991	IHT	11.005355	XA	43.542593
LNGSTK	7.5384072	B1S	6.9191910	IS	-3.0	XB	23.362518
COLSTK	18.968486	THETAW	18.968486	TH75MR	8.0884867	XC	53.053042
PEDAL	16.430614	THETTR	26.624798	TH75TR	13.124798	XP	36.031784
XAIN	4.3542593	XBIN	2.3362518	XCIN	5.3053042	XPIN	1.9456657
XBACTP	26.579556	XBACTI	2.6579556	RSTR.	0.0	PSTR	0.0
VXB	134.97575	THETAB	3.2298727	AA0F	4.1240898	QSTR	0.0
VYB	14.037047	PHIB	0.0	AA1F	-2.4431692	RSTR	0.0
VZB	7.6173689	BETAWF	5.2085227	BB1F	0.94647823E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.7905718	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.28133248	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.69448433E-1	MMITR	0.0
ALFWF	-4.0356535	EKTX	1.3916915	EKWFX	0.90188074	LMITR	0.0
CHITPP	80.144674	EKTZ	1.0046540	EKWFZ	1.0098553	QMITR	0.0
EKTR	0.0	EPSWT	0.50260522	SIGWT	0.91577682	XITR	0.0
QWF	20.306591	KQHT	0.87177979	KQVT	0.81029895	YITR	0.0
MUXS	0.10640744	CTSIG	0.11033077	LTOT	-1.7850799	ZITR	0.0
MUYS	0.19362071E-1	CHSIG	-0.34352165E-2	DTOT	24.753113	LITR	0.0
MUZS	0.74828451E-3	CQMSIG	0.90018258E-6	TTR	909.73795	MITR	0.0
LAMBMR	-0.24243400E-1	NZ	0.99036159	HPMR	1305.1001	NITR	0.0
DWSHMR	0.24991764E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.8196286
XMR	1571.7690	HBAR	-586.58499	VXBDOT	0.67895567E-2	AYP	-0.12723079E-1
YMR	-460.92243	JBAR	460.92243	VYBDOT	-0.81647107E-2	AZP	-32.122595
ZMR	-10783.062	TBAR	10041.045	VZBDOT	-0.65060374E-3	VXP	134.97575
LMR	-5481.7102	LBARH	-1342.3207	PDOT	-0.51069178E-2	VYP	14.037047
MMR	15033.333	MBARH	-6590.4613	QDOT	-0.56858591E-5	VZP	7.6173689
NMR	25696.135	QBAR	26565.695	RDOT	-0.42663540E-3	RSTR.	0.0
XWF	-474.96321	XT	-17.379785	XTR	0.0	PSIDMG	0.0
YWF	-281.56971	YT	-117.28936	YTR	854.93760	BTR	2.0
ZWF	69.050601	ZT	-32.349623	ZTR	-311.17244	MADD	0.0
LWF	490.30321	LT	-257.65514	LTR	5222.5578	XADD	0.0
MWF	-4462.9453	MT	-929.46533	MTR	-9641.1594	YADD	0.0
NWF	-2489.4075	NT	3272.0321	NTR	-26480.816	ZADD	0.0
XHT	-15.655593	XVT	-1.7241116	ALFHTT	0.58689534	NADD	0.0
YHT	-1.0190023	YVT	-116.26976	ALFVTT	6.1519560	LADD	0.0
ZHT	-32.666630	ZVT	0.31700707	AABB1F	2.4450018		

UTTAS(S76) 1-21-77 16-SEP-77 RUN 31.

WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSIMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	HLVT	273.0
KFR	15.0	PASCNT	1230.0	WLHT	234.0	FSVT	695.0
FSMT	700.40000	SHT	45.0	SVT	32.500000	USTR.	0.0
LATSTK	-1.1104497	A1S	-2.0366959	IMT	2.1731706	XA	43.059689
LNGSTK	9.9685369	B1S	9.6528607	IS	-3.0	XB	14.775487
COLSTK	19.472681	THETA0	19.472681	TH75MR	9.3926810	XC	56.284257
PEDAL	15.874932	THETTR	26.666149	TH75TR	13.166149	XP	37.594443
XAIN	4.3059688	XBIN	1.4775487	XCIN	5.6284257	XPIN	2.0308471
XBACTP	16.836392	XBACTI	1.6836392	RSTR.	0.0	PSTR	0.0
VXB	168.59812	THETAB	4.0093351	AA0F	4.1181395	QSTR	0.0
VYB	13.675958	PHIB	0.0	AA1F	-4.0935119	RSTR	0.0
VZB	11.817919	BETAWF	4.2912516	BB1F	0.11079586	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.2246011	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.36149382	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.21530410	MMITR	0.0
ALPWF	-0.94351625	EKTX	1.3321035	EKWFX	0.92517276	LMITR	0.0
CHITPP	81.936367	EKTZ	1.7012676	EKWFZ	1.0080636	QHITR	2.0
EKTR	0.0	EPSWT	0.49291251	SIGHT	0.75526032	XITR	0.0
QWF	29.220748	KWMT	0.87177979	KQVT	0.82805192	YITR	0.0
MUXS	0.25300261	CTSIG	0.11111695	LTOT	1.5842809	ZITR	0.0
MUYS	0.10864779E-1	CHSIG	-0.60613351E-2	DTOT	24.438250	LITR	0.0
MUZS	0.41069616E-2	CQHSIG	0.89888379E-6	TTR	1003.6709	MITR	0.0
LAMBMR	-0.16182195E-1	NZ	0.99770940	HPMR	1417.8943	NITR	0.0
DWSMMR	0.20289157E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.2418316
XMR	2026.5010	HBAR	-1035.0113	VXBDOT	-0.82640769E-2	AYP	-0.17539804E-1
YMR	-469.30578	JBAR	469.30578	VYBDOT	-0.89588123E-2	AZP	-32.102576
ZMR	-18892.281	TBAR	18973.924	VZBDOT	-0.28110525E-2	VXP	168.59812
LMR	-5989.8019	LBARM	-1680.7083	PDOT	-0.42076889E-2	VYP	13.675958
MMR	8011.0939	MBARM	-11078.985	QDOT	-0.20944978E-3	VZP	11.817919
NMR	27957.223	QBAR	28861.655	RDOT	0.39144494E-3	RSTR.	0.0
XWF	-692.12781	XT	-4.4813164	XTR	0.0	PSIDMG	0.0
YWF	-328.52811	YT	-150.69348	YTR	943.21235	BTR	2.0
ZWF	-34.869306	ZT	226.17545	ZTR	-343.30188	MADD	0.0
LWF	531.08875	LT	-330.35184	LTR	5761.8018	XADD	0.0
MWF	-3808.9194	MT	6425.7517	MTR	-10636.636	YADD	0.0
NWF	-2913.8706	NT	4205.0324	NTR	-29223.862	ZADD	0.0
XMT	1.2098772	XVT	-5.6911936	ALFHTT	-2.8559512	NADD	0.0
YMT	-1.5203625	YVT	-149.17312	ALFVTT	4.6777353	LADD	0.0
ZMT	225.67460	ZVT	0.50085064	AABB1F	4.0950111		

WEIGHT	19900.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLHT	234.0	FSVT	695.0
FSMT	700.40000	SMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.3859633	A1S	-2.4175206	IHT	0.73663807	XA	41.337729
LNGSTK	11.329301	B1S	11.042752	IS	-3.0	XB	9.9671332
COLSTK	20.495119	THETA0	20.495119	TH75MR	10.415119	XC	62.594495
PEDAL	16.032939	THETTR	28.851082	TH75TR	15.351082	XP	34.938623
XAIN	4.1337729	XBIN	0.99671332	XCIN	6.2594494	XPIN	1.8866365
XBACTP	10.097036	XBACTI	1.0097035	RSTR.	0.0	PSTR	0.0
VXB	202.54593	THETAB	2.7066535	AA0F	4.0824927	QSTR	0.0
VYB	14.137591	PHI0	0.0	AA1F	-4.0765376	RSTR	0.0
VZB	9.8591917	BETAWF	3.7783408	BB1F	0.91237486E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.3077339	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.41411683	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.19871798	MHITR	0.0
ALFWF	-0.67242479	EKTX	1.3092301	EKWFX	0.92921540	LHITR	0.0
CHITPP	82.247340	EKTZ	1.6934372	EKWFZ	1.0077526	QHITR	0.0
EKTR	0.0	EPSWT	0.40778340	SIGWT	0.66498797	XITR	0.0
QWF	40.235629	KQHT	0.87177979	KQVT	0.83052590	YITR	0.0
MUXS	0.27970141	CTSIG	0.11120868	LTOT	1.7044262	ZITR	0.0
MUYS	0.19501562E-1	CHSIG	-0.52454893E-2	DTOT	24.335668	LITR	0.0
MUZS	-0.10417322E-2	CQHSIG	0.89110301E-6	TTR	1236.4301	MITR	0.0
LAMBMR	-0.17980590E-1	NZ	0.99941785	HPMR	1735.8914	NITR	0.0
DWSMMR	0.16938658E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.5480383
XMR	1000.2116	HBAR	-895.70056	VXBDOT	-0.18282168E-1	AYP	-0.24985395E-1
YMR	-576.20486	JBAR	576.20486	VYBDOT	-0.96359554E-2	AZP	-32.161788
ZMR	-10915.212	TBAR	10909.588	VZBDOT	-0.21577739E-1	VXP	202.54593
LMR	-7364.0712	LBARM	-2080.8999	PDOT	-0.76190140E-2	VYP	14.137591
MMR	8971.6337	MBARM	-10981.604	QDOT	-0.13460560E-2	VZP	9.8591917
NMR	34162.719	QBAR	35293.867	RDOT	0.63290826E-3	RSTR.	0.0
XWF	-955.74425	XT	-15.344053	XTR	0.0	PSIDMG	0.0
YWF	-398.25890	YT	-193.20368	YTR	1161.9506	BTR	2.0
ZWF	-57.345424	ZT	318.58685	ZTR	-422.91629	MADD	0.0
LWF	640.90111	LT	-424.11270	LTR	7098.0089	XADD	0.0
MWF	-4975.2962	MT	9051.0401	MTR	-13103.356	YADD	0.0
NWF	-3531.2926	NT	5391.1811	NTR	-36001.105	ZADD	0.0
XHT	-4.5205446	XVT	-10.815509	ALFHTT	-3.0211777	NADD	0.0
YHT	-1.7740013	YVT	-191.42968	ALFVTT	4.0022339	LADD	0.0
ZHT	317.87643	ZVT	0.71041911	AABB1F	4.0775584		

WEIGHT	19900.0	FSLG	360.20000	V	140.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41567.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSITR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1511.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-2.3536269	A1S	-3.5876137	IHT	0.22549525	XA	35.289831
LNGSTK	13.636475	B1S	12.094850	IS	-3.0	XB	1.0145745
COLSTK	22.460454	THETA2	22.460454	TH75MR	12.380454	XC	74.077839
PEDAL	20.505540	THETTR	34.082085	TH75TR	21.382085	XP	24.757316
XAIN	3.5289831	XBIN	0.10145745	XCIN	7.4077839	XPIN	1.3360602
XBACTP	-0.16057375	XBACTI	-0.16057374E-1	RSTR.	0.0	PSTR	0.0
VXB	236.53006	THETAB	1.1100815	AA0F	4.0504862	QSTR	0.0
VYB	16.463121	PHIB	0.0	AA1F	-3.7852726	RSTR	0.0
VZB	4.5834884	BETAWF	3.8215155	BB1F	-0.41644849E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-9.3189593	HITR	0.0
Q	0.0	OMGHAT	1.0	AA1L	0.57340779	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13021995	MHITR	0.0
ALFWF	-1.4063310	EKTX	1.3318751	EKWFX	0.92306154	LHITR	0.0
CHITPP	81.773965	EKTZ	1.7159271	EKWFZ	1.0082260	QHITR	0.0
EKTR	0.0	EPSWT	0.40821515	SIGWT	0.67258676	XITR	0.0
GWF	53.340606	KQHT	0.87177979	KQVT	0.83031793	YITR	0.0
MUXS	0.32613079	CTSIG	0.11162811	LTOT	0.84100902	ZITR	0.0
MUYS	0.22709427E-1	CHSIG	-0.36940166E-2	DTOT	24.344302	LITR	0.0
MUZS	-0.10761899E-1	CQMSIG	0.88411682E-6	TTR	1780.1776	MITR	0.0
LAMBMR	-0.25529201E-1	NZ	1.0005083	HPMR	2498.0873	NITR	0.0
DWSHMR	0.14567502E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	0.59273994
XMR	1627.4197	HBAR	-630.77676	VXBDOT	-0.39691521E-1	AYP	0.33010003E-1
YMR	-867.01197	JBAR	867.01197	VYBDOT	0.16505572E-1	AZP	-32.199134
ZMR	-19002.594	TBAR	19061.208	VZBDOT	-0.25867362E-1	VXP	236.53006
LMR	-10473.540	LBARH	-2641.5031	PDOT	0.77547262E-2	VYP	16.463121
MMR	11495.290	MBARH	-16155.432	QDOT	-0.48353222E-2	VZP	4.5834884
NMR	49226.254	QBAR	50849.299	RDOT	-0.96696682E-3	RSTR.	0.0
XWF	-1266.5118	XT	-14.677223	XTR	0.0	PSIDMG	0.0
YWF	-534.01967	YT	-262.07274	YTR	1672.9441	BTR	2.0
ZWF	-13.689266	ZT	525.48245	ZTR	-608.90306	MADD	0.0
LWF	879.70445	LT	-574.77540	LTR	10219.515	XADD	0.0
MWF	-7760.4956	MT	14929.965	MTR	-18865.846	YADD	0.0
NWF	-4740.4320	NT	7312.9838	NTR	-51833.386	ZADD	0.0
XHT	0.10766535	XVT	-14.785088	ALFHTT	-3.8121386	NADD	0.0
YHT	-2.5650640	YVT	-259.50767	ALFVTT	3.9848995	LADD	0.0
ZHT	524.43675	ZVT	1.0437089	AAB01F	3.7855016		

UTTAS(S76) 1-21-77 16-SEP-77 RUN 34.

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASLNT	1066.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-5.4404543	A1S	-4.9180241	IHT	2.1386894	XA	28.497285
LNGSTK	14.149999	B1S	11.601756	IS	-3.0	XB	0.0
COLSTK	24.825531	THETA0	24.825531	TH75MR	14.745531	XC	89.659573
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	2.8497284	XBIN	0.0	XCIN	8.9659572	XPIN	0.0
XBACTP	-4.2448414	XBACTI	-0.42448414	RSTR.	0.0	PSTR	0.0
VXB	253.13872	THETAB	-2.9748592	AA0F	4.1387408	QSTR	0.0
VYB	12.924649	PHIB	0.0	AA1F	0.65937384E-1	RSTR	0.0
VZB	-13.155667	BETAWF	2.8038587	BB1F	0.38076046	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-12.920078	HITR	0.0
Q	0.0	OMGHAT	1.0	AA1L	0.63384445	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.29419435	MHITR	0.0
ALFWF	-5.0864299	EKTX	1.1817009	EKWFX	0.92365205	LHITR	0.0
CHITPP	81.019590	EKTZ	1.8439836	EKWFZ	1.0081806	QHITR	0.0
EKTR	0.0	EPSWT	0.47803658	SIGWT	0.49347914	XITR	0.0
QWF	60.914560	KUWT	0.87177979	KQV1	0.83520603	YITR	0.0
MUXS	0.34772720	CTSIG	0.11489728	LTOT	-4.0199445	ZITR	0.0
MUYS	0.17828415E-1	CHSIG	0.43780280E-2	DTOT	24.166946	LITR	0.0
MUZS	-0.36395057E-1	CQHSIG	0.90163432E-6	TTR	2028.0824	MITR	0.0
LAMBMR	-0.50367754E-1	NZ	0.99502696	HPMR	3411.7008	NITR	0.0
DWSHMR	0.13972697E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	-2.8793936
XMR	280.27903	HBAR	747.57467	VXBDOT	-0.15755469	AYP	-0.74397554
YMR	-1232.1342	JBAR	1232.1342	VYBDOT	-0.27855698E-1	AZP	-30.734137
ZMR	-19630.152	TBAR	19619.440	VZBDOT	0.11415029	VXP	253.13872
LMR	-12609.665	LBARM	-1623.5708	PDOT	-0.29819137E-2	VYP	12.924649
MMR	31302.931	MBARM	652.54000	QDOT	0.51588024	VZP	-13.155667
NMR	67226.762	QBAR	69446.167	RDOT	0.28619901	RSTR.	0.0
XWF	-1424.4390	XT	60.093732	XTR	0.0	PSIDMG	0.0
YWF	-447.26525	YT	-243.02430	YTR	1905.9157	BTR	2.0
ZWF	372.64093	ZT	958.12723	ZTR	-693.69795	MADD	0.0
LWF	829.41984	LT	-531.53838	LTR	11642.668	XADD	0.0
MWF	-15729.558	MT	27293.413	MTR	-21493.074	YADD	0.0
NWF	-4010.3709	NT	6781.6784	NTR	-59051.623	ZADD	0.0
XHT	81.734581	XVT	-21.640848	ALFHTT	-6.1673489	NADD	0.0
YHT	-2.8894506	YVT	-240.13485	ALFVTT	2.8980779	LADD	0.0
ZHT	954.96794	ZVT	3.1592999	AABB1F	0.38642756		

UTTAS(S76)   1-21-77   16-SEP-77   RUN 35.

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6260.0	WLCG	246.29999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DELSMR	0.0	VZSTR.	0.0
OMEGMR	27.019999	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	124.62000	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1557.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-3.4306555	A1S	-4.8659008	IHT	1.3540781	XA	28.508402
LNGSTK	10.0	B1S	15.310009	IS	-5.0	XB	0.0
COLSTK	24.336749	THETA0	24.336749	TH75MR	14.256749	XC	86.604684
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	2.8508402	XBIN	0.0	XCIN	8.6604684	XPIN	0.0
XBACTP	-2.9578545	XBACTI	-0.29578544	RSTR.	0.0	PSTR	0.0
VXB	253.46965	THETAB	0.44956497	AA0F	4.0285314	QSTR	0.0
VYB	16.549719	PHIB	0.0	AA1F	-4.7308915	RSTR	0.0
VZB	1.9880267	BETAWF	3.6053156	BB1F	-0.14074197	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-12.037575	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.75640594	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.24300257	MHITR	0.0
ALFWF	-1.7260323	EKTX	1.4605106	EKWFX	0.90654086	LHITR	0.0
CHITPP	80.503760	EKTZ	1.7187020	EKWFZ	1.0094962	QHITR	0.0
EKTR	0.0	EPSWT	0.48605315	SIGWT	0.63453555	XITR	0.0
QWF	60.531652	KUWT	0.87177979	KQVI	0.83135081	YITR	0.0
MUXS	0.34927631	CTSIG	0.11127502	LTOT	0.36992740	ZITR	0.0
MUYS	0.22820000E-1	CMSIG	-0.39601074E-2	DTOT	24.301063	LITR	0.0
MUZS	-0.15550705E-1	CUMSIG	0.87932465E-6	TTR	2048.2778	MITR	0.0
LAMBMR	-0.29113717E-1	NZ	1.0047198	HPMR	3201.4266	NITR	0.0
DWSMMR	0.13555014E-1	VC	0.89406967E-6	KTRBLK	1.0	AXP	0.72012783
XMR	1669.6352	HBAR	-676.21344	VXBDOT	0.99803665E-1	AYP	-0.34380690
YMR	-1031.7110	JBAR	1031.7110	VYBDOT	0.58828017E-1	AZP	-32.924960
ZMR	-18938.010	TBAR	19000.915	VZBDOT	-0.15570784	VXP	253.46965
LMR	-12395.365	LBARH	-2031.2354	PDOT	0.11854068E-1	VYP	16.549719
MMR	8519.6291	MBARH	-12775.823	QDOT	-0.24323881	VZP	1.9880267
NMR	63220.401	QBAR	65165.975	RDOT	0.17076685	RSTR.	0.0
XWF	-1437.0648	XT	-23.279671	XTR	0.0	PSIDMG	0.0
YWF	-571.66152	YT	-286.62103	YTR	1924.8947	BTR	2.0
ZWF	21.061179	ZT	439.46363	ZTR	-700.60574	MADD	0.0
LWF	953.04934	LT	-629.97055	LTR	11758.605	XADD	0.0
MWF	-9421.0754	MT	12493.775	MTR	-21707.101	YADD	0.0
NWF	-5078.0006	NT	7997.8013	NTR	-59639.654	ZADD	0.0
XHT	-4.9906504	XVT	-18.789021	ALFHTT	-2.7882592	NADD	0.0
YHT	-2.3680779	YVT	-284.23295	ALFVTT	3.7295165	LADD	0.0
ZHT	438.13874	ZVT	1.3248908	AABB1F	4.7329846		

UTTAS(376)   1-21-77   9-DEC-77   RUN 13.

WEIGHT	19900.0	FSCG	360.20000	V	40.0	PSITR2	0.0
IX	6260.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.87999	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1574.0	WLHT	234.0	FSVT	695.0
FSHT	702.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.8645144	A1S	-2.6500080	IHT	20.452054	XA	38.346784
LNGSTK	4.5758386	B1S	4.1443951	IS	-3.0	XB	33.830958
COLSTK	18.106151	THETAG	18.106151	TH75MR	8.0261315	XC	47.663440
PEDAL	14.869822	THETTR	24.021204	TH75TR	10.521204	XP	40.380842
XAIN	3.8346784	XBIN	3.3830958	XCIN	4.7663447	XPIN	2.1805087
XBACTP	40.587456	XBACTI	4.0587456	RSTR.	0.0	PSTR	0.0
VXB	67.349219	THETAB	4.8855227	AA0F	3.4930566	QSTR	0.0
VYB	0.0	PHIB	-1.7132399	AA1F	-2.6241740	RSTR	0.0
VZB	5.7569621	BETAWF	0.0	BB1F	-0.30751656	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.0887476	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.22559698	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.12570405	MHITR	0.0
ALFWF	-17.870822	EKTX	0.97824706	EKWFX	0.69015835	LHITR	0.0
CHIIPP	62.319874	EKTZ	2.0165237	EKWFZ	1.0353602	QHITR	0.0
EKTH	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.9436876	KQHT	0.93225064	KQVT	0.84852813	YITR	0.0
MUXS	0.84717864E-1	CTSIG	0.92667451E-1	LTOT	-30.741646	ZITR	0.0
MUYS	0.0	CHSIG	-0.33423798E-2	DTOT	29.891491	LITR	0.0
MUZS	0.27890401E-2	CQHSIG	0.63020404E-6	TTR	1141.9651	MITR	0.0
LAMBMR	-0.39600741E-1	NZ	0.99586486	HPMR	1839.6475	NITR	0.0
DWSHMR	0.42397781E-1	VC	0.15498790	KTRBLK	1.0	AXP	2.7434510
XMR	1691.3788	HBAR	-690.49346	VXBDOT	0.34182158E-2	AYP	0.95412731
YMR	-501.21399	JBAR	501.21399	VYBDOT	-0.37110595E-2	AZP	-32.041112
ZMR	-19080.065	TBAR	19143.925	VZBDOT	-0.93619450E-3	VXP	67.349219
LMR	-6584.4585	LBARH	-1796.4220	PDOT	-0.11164289E-2	VYP	0.0
MMR	12741.703	MBARH	-8599.6812	QDOT	0.12460200E-3	VZP	5.7569621
NMR	33073.957	QBAR	34044.621	RDOT	-0.61171596E-3	RSTR.	0.0
XWF	-151.03022	XT	87.254710	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-5.5844328	YTR	1073.1760	BTR	4.0
ZWF	305.29718	ZT	156.30481	ZTR	-390.60488	MADD	0.0
LWF	0.0	LT	-12.611510	LTR	6591.4835	XADD	0.0
MWF	-5156.1865	MT	4521.9060	MTR	-12102.241	YADD	0.0
NWF	0.0	NT	155.80567	NTR	-33250.569	ZADD	0.0
XHT	88.654954	XVT	-1.4002439	ALFHTT	-4.8430697	NADD	0.0
YHT	0.0	YVT	-5.5844328	ALFVTT	0.0	LADD	0.0
ZHT	155.38520	ZVT	0.91961704	AA0B1F	2.6421309		

UTTAS(S76) 1-21-77 9-DEC-77 RUN 14.

WEIGHT	19900.0	FSCG	360.26000	V	40.0	PSITR2	0.0
IX	6268.0	WLCG	245.09999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	2674.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.6904761	A1S	-2.4794089	IHT	29.436497	XA	39.434524
LNGSTK	8.9723980	B1S	4.4852173	IS	-3.0	XB	10.295413
COLSTK	10.139541	THETA0	10.139541	TH75MR	8.0595413	XC	47.872134
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	3.9434523	XBIN	1.8295412	XCIN	4.7872134	XPIN	0.0
XBACTP	25.158770	XBACTI	2.5158770	RSTR.	0.0	PSTR	0.0
VXB	67.320324	THETAB	5.1667298	AA0F	3.5054756	QSTR	0.0
VYB	0.0	PHIB	-1.1618475	AA1F	-2.9759461	RSTR	0.0
VZB	6.0874677	BETAWF	0.0	BB1F	-0.11532145	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.9660046	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24657864	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.14604984	MHITR	0.0
ALFWF	-17.773577	EKTX	0.98569392	EKWFX	0.68735896	LHITR	0.0
CHI1PP	62.104536	EKTZ	2.0051772	EKWFZ	1.0357909	QHITR	0.0
EKTW	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.9291009	KQHT	0.93026660	KQVT	0.84852813	YITR	0.0
MUXS	0.84703371E-1	CTSIG	0.92916730E-1	LTOT	-30.547155	ZITR	0.0
MUYS	0.0	CHSIG	-0.38959391E-2	DTOT	29.809805	LITR	0.0
MUZS	0.32248219E-2	CQMSIG	0.63244462E-6	TTR	871.06125	MITR	0.0
LAMBMR	-0.39356659E-1	NZ	0.99554963	HPMR	1791.5808	NITR	0.0
DWSHMR	0.42561481E-1	VC	0.11252760	RTRBLK	1.0	AXP	2.8221915
XMR	1808.2667	HBAR	-804.05180	VXBDOT	0.20590363E-2	AYP	0.18598458
YMR	-427.64149	JBAR	427.64149	VYBDOT	-0.97361655E-4	AZP	-32.031626
ZMR	-19125.504	TBAR	19195.423	VZBDOT	0.16378259E-3	VXP	67.320324
LMR	-5446.0148	LBARH	-1145.2653	PDOT	-0.36138440E-4	VYP	0.0
MMR	10945.627	MBARH	-9769.0510	QDOT	-0.32089871E-3	VZP	6.0874677
NMR	32341.243	QBAR	33155.096	RDOT	0.18664539	RSTR.	0.0
XWF	-151.12421	XT	62.978297	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-5.5857317	YTR	818.59069	RTR	2.0
ZWF	302.81390	ZT	117.50245	ZTR	-297.94322	MADD	0.0
LWF	0.0	LT	-12.614444	LTR	5027.0110	XADD	0.0
MWF	-5127.7678	MT	3400.0496	MTR	-9231.2741	YADD	0.0
NWF	0.0	NT	155.84191	NTR	-25362.668	ZADD	0.0
XHT	64.302843	XVT	-1.4045450	ALFHTT	-3.6090681	NADD	0.0
YHT	0.0	YVT	-5.5857317	ALFVTT	0.0	LADD	0.0
ZHT	116.66874	ZVT	0.91371019	AABB1F	2.9781797		

WEIGHT	19900.0	FSCG	360.20900	V	60.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38220.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1768.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.0044239	A1S	-1.7097144	IHT	20.993322	XA	43.722350
LNGSTK	9.2486419	B1S	4.5259636	IS	-3.0	XB	17.319285
COLSTK	17.327480	THETA0	17.327480	TH75MR	7.2474805	XC	42.796754
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.3722350	XBIN	1.7319285	XCIN	4.2796754	XPIN	0.0
XBACTP	21.993865	XBACTI	2.1993865	RSTR.	0.0	PSTR	0.0
VXB	101.23182	THETAB	3.2297766	AA0F	3.3547941	QSTR	0.0
VYB	17.358673	PHIB	0.0	AA1F	-1.8636352	RSTR	0.0
VZB	5.7128560	BETAWF	8.0633511	BB1F	-0.24623458E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1541264	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.19526776	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.59893330E-1	MHITR	0.0
ALFWF	-8.5579099	EKTX	1.2621922	EKWFX	0.84775730	LHITR	0.0
CHITPP	75.250664	EKTZ	1.9466122	EKWFZ	1.0147493	QHITR	0.0
EKTW	0.0	EPSWT	0.53063350	SIGWT	1.2598555	XITR	0.0
QWF	13.415961	KOWT	0.87177979	KOVT	0.75479755	YITR	0.0
MUXS	0.12714544	CTSIG	0.91408263E-1	LTOT	-8.0799858	ZITR	0.0
MUYS	0.21769430E-1	CHSIG	-0.20799346E-2	DTOT	27.471151	LITR	0.0
MUZS	0.51001512E-3	CQMSIG	0.68525924E-6	TTR	893.24377	MITR	0.0
LAMBMR	-0.29085651E-1	NZ	0.99833767	HPMR	1512.7996	NITR	0.0
DWSHMR	0.29595666E-1	VC	0.35762786E-5	KTPBLK	1.0	AXP	1.7989645
XMR	1417.3374	HBAR	-829.68821	VXBDOT	0.16676607E-2	AYP	-0.92339456E-1
YMR	-453.80405	JBAR	453.80405	VYBDOT	0.54645530E-3	AZP	-32.120793
ZMR	-18833.958	TBAR	18883.792	VZBDOT	0.12180816E-3	VXP	101.23182
LMR	-5609.2498	LBARH	-1421.8396	PDOT	0.33823054E-3	VYP	17.358673
MMR	16341.307	MBARH	-6238.9834	QDOT	-0.16790942E-3	VZP	5.7128568
NMR	27131.914	QBAR	27995.956	RDOT	0.37654558E-1	RSTR.	0.0
XWF	-311.73696	XT	-29.196732	XTR	0.0	PSIDMG	-150.0
YWF	-287.34966	YT	-97.959074	YTR	839.43699	BTR	2.0
ZWF	156.50572	ZT	-73.285627	ZTR	-305.53067	MADD	0.0
LWF	584.26444	LT	-215.61415	LTR	5155.8505	XADD	0.0
MWF	-4759.0901	MT	-2122.0414	MTR	-9466.3585	YADD	0.0
NWF	-2418.6657	NT	2733.8349	NTR	-26008.555	ZADD	0.0
XHT	-34.188615	XVT	4.9918023	ALFHTT	1.7730267	NADD	0.0
YHT	-1.7261828	YVT	-96.232891	ALFVTT	11.184022	LADD	0.0
ZHT	-71.545200	ZVT	-1.7403468	AABB1F	1.8637979		

WEIGHT	19900.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2031.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.86986941	A1S	-1.5660727	IHT	8.7391549	XA	44.563316
LNGSTK	10.709941	B1S	6.0416779	IS	-3.0	XB	11.872997
COLSTK	17.239255	THETA0	17.239255	TH75MR	7.1592553	XC	42.245346
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.4563316	XBIN	1.1872997	XCIN	4.2245346	XPIN	0.0
XBACTP	15.139236	XBACTI	1.5139236	RSTR.	0.0	PSTR	0.0
VXB	134.95994	THETAB	3.3575525	AA0F	3.3103565	QSTR	0.0
VYB	17.445485	PHIB	0.0	AA1F	-2.8342951	RSTR	0.0
VZB	7.9182832	BETAWF	6.5668983	BB1F	-0.87259753E-2	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1746602	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.22658934	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.16232964	MHITR	0.0
ALFWF	-3.9388427	EKTX	1.4147717	EKWFX	0.89850596	LHITR	0.0
CHIJPP	79.864179	EKTZ	1.7989190	EKWFZ	1.0101358	QHITR	0.0
EKTR	0.0	EPSWT	0.51566898	SIGWT	1.0742954	XITR	0.0
QWF	20.383912	KQHT	0.87177979	KQVT	0.78967819	YITR	0.0
MUXS	0.16952722	CTSIG	0.91627454E-1	LTOT	-1.4132319	ZITR	0.0
MUYS	0.21878300E-1	CHSIG	-0.29416348E-2	DTOT	25.520138	LITR	0.0
MUZS	0.10581784E-2	COMSIG	0.59724199E-6	TTR	983.09224	MITR	0.0
LAMBMR	-0.21708420E-1	NZ	0.99811819	HPMR	1508.5396	NITR	0.0
DWSHMR	0.22766590E-1	VC	0.0	KTRBLK	1.0	AXP	1.9030294
XMR	1597.4658	HBAR	-607.70460	VXBDOT	0.10498289E-1	AYP	0.43461586E-1
YMR	-435.84047	JBAR	435.84047	VYBDOT	-0.24149638E-2	AZP	-32.115199
ZMR	-18869.859	TBAR	18929.074	VZBDOT	0.34192703E-2	VXP	134.95994
LMR	-5940.7889	LBARH	-1865.9883	PDOT	-0.10927268E-2	VYP	17.445485
MMR	12125.547	MBARH	-9432.6397	QDOT	-0.51885313E-3	VZP	7.9182832
NMR	27059.601	QBAR	27917.121	RDOT	-0.19284157E-1	PSTR.	0.0
XWF	-479.96389	XT	6.6568422	XTR	0.0	PSIDMG	-150.0
YWF	-352.03281	YT	-137.43266	YTR	923.87322	RTR	2.0
ZWF	61.935217	ZT	92.187300	ZTR	-336.26300	MADD	0.0
LWF	609.14684	LT	-305.17834	LTR	5674.4606	XADD	0.0
MWF	-4341.5509	MT	2612.9741	MTR	-10418.548	YADD	0.0
NWF	-3804.6163	NT	3835.0900	NTR	-28624.671	ZADD	0.0
XHT	5.1281052	XVT	1.5367369	ALFHTT	-1.5274318	NADD	0.0
YHT	-1.5970551	YVT	-135.83561	ALFVTT	7.9560775	LADD	0.0
ZHT	92.385647	ZVT	-0.27834640	AABB1F	2.8343085		

WEIGHT	19900.0	FSCG	360.20000	V	60.0	PSITR2	0.0
IX	6260.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1873.0	WLHT	234.0	FSVT	695.0
FSMT	780.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.87282037	A1S	-1.3969302	IHT	13.111709	XA	44.544872
LNGSTK	0.4713916	B1S	4.4885099	IS	-3.0	XB	20.065753
COLSTK	15.510192	THETA0	15.510192	TH75MR	5.4301929	XC	31.438706
PEDAL	24.897089	THETTR	30.933320	TH75TR	17.433320	XP	12.582919
XAIN	4.4544872	XBIN	2.0065753	XCIN	3.1438706	XPIN	0.67945999
XBACTP	24.902105	XBACTI	2.4902105	RSTR.	0.0	PSTR	0.0
VXB	101.19271	THETAB	3.6510470	AA0F	3.1188814	QSTR	0.0
VYB	15.212541	PHIB	0.0	AA1F	-2.5952790	RSTR	0.0
VZB	6.4574910	BETAWF	7.3938179	BB1F	-0.12522788E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.7810409	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.18120714	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13596708	MHITR	0.0
ALFWF	-5.5941872	EKTX	1.3627530	EKWFX	0.87956745	LHITR	0.0
CHIIPP	78.142497	EKTZ	1.8499282	EKWFZ	1.0118574	QHITR	0.0
EKTR	0.0	EPSWT	0.52393817	SIGWT	1.1768334	XITR	0.0
QWF	16.634927	KQHT	0.87177979	KQVT	0.77059882	YITR	0.0
MUXS	0.12714534	CTSIG	0.67441533E-1	LTOT	-3.4719362	ZITR	0.0
MUYS	0.19077976E-1	CHSIG	-0.21905100E-2	DTOT	26.192169	LITR	0.0
MUZS	0.14450719E-2	CQMSIG	0.41409561E-6	TTR	868.80124	MITR	0.0
LAMBMR	-0.20724786E-1	NZ	0.99792698	HPMR	1376.7831	NITR	0.0
D-BMMR	0.22169858E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	2.0523527
XMR	1604.8492	HBAR	-614.92593	VXBDOT	0.30229822E-2	AYP	-0.44747859E-2
YMR	-375.85036	JBAR	375.85036	VYBDOT	-0.30811874E-2	AZP	-32.108133
ZMR	-19872.772	TBAR	18932.370	VZBDOT	0.92508360E-3	VXP	101.19271
LMR	-5353.1578	LBARH	-1765.9570	PDOT	-0.11774270E-2	VYP	15.212541
MMR	12842.768	MBARH	-8675.9033	QDOT	-0.13679194E-3	VZP	6.4574910
NMR	24729.098	QBAR	25478.827	RDOT	-0.31201199E-3	RSTR.	0.0
XWF	-389.72188	XT	2.2538232	XTR	0.0	PSIDMG	-150.0
YWF	-324.39345	YT	-118.05096	YTR	816.46682	BTR	2.0
ZWF	96.188969	ZT	25.323549	ZTR	-297.17019	MADD	0.0
LWF	593.97437	LT	-262.24373	LTR	5014.7669	XADD	0.0
MWF	-4348.4458	MT	787.31196	MTR	-9207.3231	YADD	0.0
NWF	-2735.6786	NT	3294.2255	NTR	-25296.863	ZADD	0.0
XMT	-1.8356648	XVT	4.0895081	ALFHTT	-0.48803997	NADD	0.0
YMT	-1.3399229	YVT	-116.71106	ALFVTT	9.5416202	LADD	0.0
ZMT	26.312879	ZVT	-0.98933011	AABB1F	2.5953092		

WEIGHT	19900.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41507.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38724.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1427.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.71544498	A1S	-1.2408946	IHT	-0.66897055	XA	45.528469
LNGSTK	10.896223	B1S	7.2985121	IS	-3.0	XB	11.497442
CLLSTK	15.581452	THETA0	15.581452	TH75MR	5.5014528	XC	31.884080
PEDAL	23.591088	THETTR	29.712831	TH75TR	16.212831	XP	16.203457
XAIN	4.5528469	XBIN	1.1497442	XCIN	3.1884080	XPIN	0.87496395
XBACTP	15.438922	XBACTI	1.5438922	RSTR.	0.0	PSTR	0.0
VXB	134.65440	THETAB	5.0997732	AA0F	3.1233969	QSTR	0.0
VYB	14.292419	PHIB	0.0	AA1F	-5.0396724	RSTR	0.0
VZB	12.017546	BETAWF	5.5490612	BB1F	0.21341068E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.9001386	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.21807280	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.33318363	MHITR	0.0
ALFWF	-0.67705678	EKTX	1.4160471	EKWFX	0.91667421	LHITR	0.0
CHITPP	81.282633	EKTZ	1.6873798	EKWFZ	1.0087173	QHITR	0.0
EKTR	0.0	EPSWT	0.50549060	SIGWT	0.94808359	XITR	0.0
QWF	25.995102	KQHT	0.87177979	KQVT	0.81254771	YITR	0.0
MUXS	0.16941364	CTSIG	0.68251451E-1	LTOT	2.2973439	ZITR	0.0
MUYS	0.17924055E-1	CHSIG	-0.46088179E-2	DTOT	24.909436	LITR	0.0
MUZS	0.62116452E-2	CQHSIG	0.41469513E-6	TTR	914.20640	MITR	0.0
LAMWMR	-0.10895403E-1	NZ	0.99602522	HPMR	1410.4313	NITR	0.0
DWSHMR	0.17107048E-1	VC	0.0	KTRBLK	1.0	AXP	2.8477028
XMR	2294.6389	HBAR	-1293.7999	VXBDOT	-0.10901341E-1	AYP	-0.17964955E-1
YMR	-324.46621	JBAR	324.46621	VYBDOT	-0.91565769E-2	AZP	-32.046421
ZMR	-19064.277	TBAR	19159.733	VZBDOT	-0.19513996E-2	VXP	134.65440
LMR	-5538.8038	LBARH	-2228.1582	PDOT	-0.48471713E-2	VYP	14.292419
MMR	947.13549	MBARH	-14746.641	QDOT	0.69054394E-3	VZP	12.017546
NMR	25411.521	QBAR	26101.522	RDOT	-0.47716187E-4	RSTR.	0.0
XWF	-614.44516	XT	10.017197	XTR	0.0	PSIDMG	-150.0
YWF	-378.46377	YT	-161.63925	YTR	859.13688	MTR	2.0
ZWF	-52.449030	ZT	417.29761	ZTR	-312.70085	MADD	0.0
LWF	587.80217	LT	-356.11811	LTR	5276.8479	XADD	0.0
MWF	-3076.9388	MT	11847.035	MTR	-9688.5147	YADD	0.0
NWF	-3294.2089	NT	4510.9698	NTR	-26618.924	ZADD	0.0
XHT	12.109209	XVT	-2.0920122	ALFHTT	-5.7648229	NADD	0.0
YHT	-2.7437537	YVT	-158.89549	ALFVTT	6.2653794	LADD	0.0
ZHT	417.11105	ZVT	0.18656219	AARB1F	5.0397176		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 19.

WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1259.0	WLHT	234.0	FSVT	695.0
FSHT	720.42000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.66472623	A1S	-1.2025347	IHT	-3.1982683	XA	45.845586
LNGSTK	12.140168	B1S	9.5611313	IS	-3.0	XB	7.0736077
COLSTK	16.070568	THETA0	16.070568	TH75MR	5.9905680	XC	34.941251
PEDAL	24.061961	THETTR	30.769742	TH75TR	17.269742	XP	14.900583
XAIN	4.5845586	XBIN	0.72736077	XCIN	3.4941251	XPIN	0.82461060
XBACTP	9.2460792	XBACTI	0.92460791	RSTR.	0.0	PSTR	0.0
VXB	168.52484	THETAB	4.2945974	AA0F	3.1238591	QSTR	0.0
VYB	14.399203	PHIB	0.0	AA1F	-5.7161325	RSTR	0.0
VZB	12.656104	BETAWF	4.6879102	BB1F	0.87363581E-2	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.4294557	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.23465514	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.42551923	MHITR	0.0
ALF-F	0.51612854	EKTX	1.3909970	EKWFX	0.92429223	LHITR	0.0
CHIIPP	81.868635	EKTZ	1.6492091	EKWFZ	1.0281313	QHITR	0.0
EKTW	0.0	EPSWT	0.49607918	SIGWT	0.81099368	XITR	0.0
QWF	38.198503	KQHT	0.87177979	KGVT	0.82652081	YITR	0.0
MUXS	0.21187279	CTSIG	0.68347305E-1	LTOT	3.7721986	ZITR	0.0
MUYS	0.18257721E-1	CMSIG	-0.48042533E-2	DTOT	24.656422	LITR	0.0
MUZS	0.47883037E-2	CQMSIG	0.41210108E-6	TTR	1254.1873	MITR	0.0
LAMBMR	-0.89528444E-2	NZ	0.99710299	HPMR	1596.9259	NITR	0.0
DWSHMR	0.13741148E-1	VC	0.14305114E-4	KTPBLK	1.0	AXP	2.4852013
XMR	2352.7748	HBAR	-1348.6069	VXBDOT	-0.33771158E-2	AYP	-0.36580992E-1
YMR	-327.23468	JBAR	327.23468	VYBDOT	-0.18796972E-1	AZP	-32.283637
ZMR	-19288.278	TBAR	19166.441	VZBDOT	0.27489139E-2	VXP	168.52484
LMR	-6386.3409	LBARH	-2079.3978	PDOT	-0.11121780E-1	VYP	14.399203
MMR	-1522.9972	MBARH	-18919.292	QDOT	0.72251041E-3	VZP	12.656104
NMR	29819.152	QBAR	29552.462	RDOT	-0.12866822E-2	RSTR.	0.0
XWF	-906.29779	XT	-17.014739	XTR	0.0	PSIDMG	-150.0
YWF	-461.62434	YT	-212.97843	YTR	990.68571	BTR	0.0
ZWF	-152.26561	ZT	568.42292	ZTR	-362.58881	MADD	0.0
LWF	705.71753	LT	-471.40618	LTR	6284.8252	XADD	0.0
MWF	-3394.8950	MT	16119.754	MTR	-11171.995	YADD	0.0
NWF	-4883.7100	NT	5943.4235	NTR	-32694.745	ZADD	0.0
XHT	-10.255864	XVT	-6.7580745	ALFHTT	-5.6188302	NADD	0.0
YHT	-2.9446552	YVT	-210.03378	ALFVTT	4.9147772	LADD	0.0
ZHT	568.13721	ZVT	0.28571432	AABB1F	5.7161391		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 20.

WEIGHT	19900.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	6260.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.720000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.07999	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1970.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.72682374	A1S	-1.3971259	IHT	-5.1248397	XA	45.457351
LNGSTK	14.149999	B1S	10.374674	IS	-3.0	XB	0.0
COLSTK	16.987788	THETA0	16.987788	TH75MR	6.9077883	XC	40.673670
PEDAL	25.680727	THETTR	33.498973	TH75TR	19.998073	XP	10.388314
XAIN	4.5457351	XBIN	0.0	XCIN	4.0673677	XPIN	0.56095439
XBACTP	0.46556752	XBACTI	0.46556752E-1	RSTR.	0.0	PSTR	0.0
VXB	202.38529	THETAB	3.6517221	AA0F	3.1256101	QSTR	0.0
VYB	15.319704	PHIB	0.0	AA1F	-6.7929436	RSTR	0.0
VZB	12.917368	BETAWF	4.1546907	BB1F	-0.80790551E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.3466337	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.26648419	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.56084182	MHITR	0.0
ALFWF	0.98460589	EKTX	1.4552094	EKWFX	0.91643035	LHITR	0.0
CHITPP	81.263875	EKTZ	1.6558753	EKWFZ	1.0087361	QHITR	0.0
EKTR	0.0	EPSWT	0.49154690	SIGWT	0.73122557	XITR	0.0
QWF	53.139541	KQHT	0.87177979	KQVT	0.82871133	YITR	0.0
MUXS	0.25429068	CTSIG	0.68039386E-1	LTOT	4.4343106	ZITR	0.0
MUYS	0.19212368E-1	CMSIG	-0.54432862E-2	DTOT	24.706343	LITR	0.0
MUZS	0.28931406E-2	COMSIG	0.41498897E-6	TTR	1292.9737	MITR	0.0
LAMBMR	-0.86482910E-2	NZ	0.99754623	HPMR	1928.8460	NITR	0.0
DWSHMR	0.11541432E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.0164442
XMR	2537.1915	HBAR	-1520.0541	VXBDOT	0.85464011E-2	AYP	-0.51187725E-2
YMR	-360.85666	JBAR	360.85666	VYBDOT	-0.77302145E-2	AZP	-32.038599
ZMR	-19216.825	TBAR	19324.780	VZBDOT	0.13155281E-1	VXP	202.38529
LMR	-7746.7114	LBARH	-3717.6741	PDOT	-0.31503696E-2	VYP	15.319704
MMR	-5916.5878	MBARH	-22406.060	QDOT	0.23261686E-1	VZP	12.917368
NMR	34853.418	QBAR	35695.334	RDOT	-0.33879355E-2	RSTR.	0.0
XWF	-1270.0286	XT	-46.280238	XTR	0.0	PSIDMG	-150.0
YWF	-579.57605	YT	-279.24160	YTR	1215.0881	BTR	2.0
ZWF	-257.56423	ZT	875.48445	ZTR	-442.25679	MADD	0.0
LWF	889.51687	LT	-617.84876	LTR	7463.1128	XADD	0.0
MWF	-4229.8539	MT	24816.415	MTR	-13702.589	YADD	0.0
NWF	-5120.7782	NT	7792.6092	NTR	-37647.481	ZADD	0.0
XHT	-33.218424	XVT	-13.061814	ALFHTT	-6.3456864	NADD	0.0
YHT	-3.9298878	YVT	-275.31179	ALFVTT	4.3328628	LADD	0.0
ZHT	875.20689	ZVT	0.27837634	AABB1F	6.7934240		

UTTAS(S76) 1-21-77 9-DEC-77 RUN 21.

WEIGHT	19900.0	FSCG	360.20000	V	60.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23782000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1615.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1143000	A1S	-1.8366822	IHT	15.097291	XA	43.035628
LNGSTK	5.3188954	B1S	5.4574330	IS	-3.0	XB	31.205316
COLSTK	17.493420	THETAB	17.493420	TH75MR	7.4134200	XC	43.833875
PEDAL	12.190950	THETTR	20.007054	TH75TR	7.1070542	XP	47.807301
XAIN	4.3035624	XBIN	3.1205315	XCIN	4.3833075	XPIN	2.5815271
XBACTP	36.043353	XBACTI	3.6043353	PSTR.	2.0	PSTR	0.0
VXB	101.19230	THETAB	3.6554366	AA0F	4.4693621	QSTR	0.0
VYB	12.318592	PHIB	0.0	AA1F	-2.5242755	RSTR	0.0
VZB	6.4652500	BETAWF	5.9973912	BB1F	0.65869069E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.7997738	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.28241277	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.10505260	MHITR	0.0
ALFWF	-5.5985982	EKTX	1.3616490	EKWFX	0.88040187	LHITR	0.0
CHIIPP	70.218353	EKTZ	1.8593986	EKWFZ	1.0117816	QHITR	0.0
EKTR	0.0	EPSHT	0.50997390	SIGHT	1.0036765	XITR	0.0
QWF	16.543644	KQHT	0.87177979	KQVT	0.90255461	YITR	0.0
MUXB	0.14732006	CTSIG	0.90182286E-1	LTOT	-3.7422789	ZITR	0.0
MUYB	0.17900000E-1	CHSIG	-0.30837924E-2	DTOT	25.352659	LITR	0.0
MUZB	0.16856578E-2	CQMSIG	0.79665479E-6	TTR	815.17476	MITR	0.0
LAMBMR	-0.24000464E-1	NZ	0.99789500	HPMR	1116.0431	NITR	0.0
DWSHMR	0.25686121E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	2.0511786
XMR	1630.7650	HBAR	-644.82196	VXBDOT	-0.94853992E-4	AYP	-0.31462543E-2
YMR	-404.97912	JBAR	404.97912	VYBDOT	-0.25446759E-2	AZP	-32.106226
ZMR	-10796.090	TBAR	10857.145	VZBDOT	0.18246533E-2	VXP	101.19230
LMR	-4960.4311	LBARH	-1278.6740	PDOT	-0.58966543E-3	VYP	12.318592
MMR	15122.247	MBARH	-6114.2667	QDOT	0.11813627E-3	VZP	6.4652500
NMR	23160.681	QBAR	23932.749	RDOT	-0.19575591E-3	RSTR.	0.0
XWF	-386.45189	XT	-27.321138	XTR	0.0	PSIOMG	-150.0
YWF	-260.92967	YT	-101.67155	YTR	766.07767	BTR	4.0
ZWF	100.00562	ZT	-72.907055	ZTR	-270.82746	MADD	0.0
LWF	477.06400	LT	-225.51177	LTR	4705.2320	XADD	0.0
MWF	-4303.4137	MT	-2094.9165	MTR	-8639.0040	YADD	0.0
NWF	-2268.5581	NT	2837.2036	NTR	-23735.422	ZADD	0.0
XHT	-27.610196	XVT	0.28905771	ALFHTT	1.5276435	NADD	0.0
YHT	-1.2684584	YVT	-100.41109	ALFVTT	7.3863554	LADD	0.0
ZHT	-72.037181	ZVT	-0.69874636E-1	AABB1F	2.5251349		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 22.

WEIGHT	19900.0	FSCG	369.20002	V	80.0	PSITR2	0.0
IX	6268.0	WLCG	245.8999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780020E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1343.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.302000	QSTR.	0.0
LATSTK	-1.0331856	A1S	-1.7600658	IHT	1.3570012	XA	43.542590
LNGSTK	8.0954724	B1S	0.4832327	IS	-3.0	XB	21.394090
COLSTK	17.614760	THETA0	17.614760	TH75MR	7.5347601	XC	44.592251
PEDAL	10.707400	THETTR	19.269200	TH75TR	5.7692003	XP	51.919804
XAIN	4.3542590	XBIN	2.1394090	XCIN	4.4592251	XPIN	2.0035964
XBACTP	25.418750	XBACTI	2.5418750	RSTR.	0.0	PSTR	0.0
VXB	134.61045	THETAB	5.3136714	AA0F	4.4686576	QSTR	0.0
VYB	11.327554	PHIB	0.0	AA1F	-5.0645158	RSTR	0.0
VZB	12.520339	BETAWF	4.4032309	BB1F	0.10794234	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.6959404	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.35220570	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.36514841	MHITR	0.0
ALFWF	-0.45797920	EKTX	1.4013349	EKWFX	0.91945726	LHITR	0.0
CHIIPP	81.496714	EKTZ	1.6007715	EKWFZ	1.0085032	QHITR	0.0
EKTW	0.0	EPSWT	0.49403038	SIGWT	0.77493489	XITR	0.0
QWF	25.881134	KQHT	0.87177979	KGVT	0.82751174	YITR	0.0
MUXS	0.19626972	CTSIG	0.98966781E-1	LTOT	2.2116403	ZITR	0.0
MUYS	0.16459935E-1	CHSIG	-0.66453533E-2	DTOT	24.460607	LITR	0.0
MUZS	0.79301624E-2	CQHSIG	0.79652923E-6	TTR	816.24388	MITR	0.0
LAMBMR	-0.11802858E-1	NZ	0.99560643	HPMR	1088.4997	NITR	0.0
DWSHMR	0.19733020E-1	VC	0.71525573E-5	RTRBLK	1.0	AXP	0.9790160
XMR	2382.9949	HBAR	-1389.5454	VXBDOT	0.15337900E-2	AYP	-0.20954962E-1
YMR	-339.76671	JBAR	339.76671	VYBDOT	-0.10671942E-1	AZP	-32.032237
ZMR	-18920.916	TBAR	19021.183	VZBDOT	0.10621177E-2	VXP	134.61045
LMR	-4910.5807	LBARH	-1651.7616	PDOT	-0.54754573E-2	VYP	11.327554
MMR	4612.1185	MBARH	-12314.596	QDOT	0.12814745E-2	VZP	12.520339
NMR	22659.057	QBAR	23340.150	RDOT	0.80155349E-4	RSTR.	0.0
XWF	-612.37447	XT	-2.0459718	XTR	0.0	PSIDMG	-150.0
YWF	-298.55915	YT	-135.00089	YTR	767.07538	BTR	4.0
ZWF	-52.349173	ZT	240.32375	ZTR	-279.19314	MADD	0.0
LWF	464.66864	LT	-299.99599	LTR	4711.4030	XADD	0.0
MWF	-2969.1767	MT	7052.3756	MTR	-8650.3342	YADD	0.0
NWF	-2646.2677	NT	3769.4577	NTR	-23766.552	ZADD	0.0
XHT	2.4451756	XVT	-4.4911475	ALFHTT	-3.4489646	NADD	0.0
YHT	-1.5574429	YVT	-133.52344	ALFVTT	4.8540196	LADD	0.0
ZHT	247.94613	ZVT	0.37761892	AAB51F	5.2656660		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 23.

WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	6268.0	WLCG	245.99999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	110.32250	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	734.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.0312716	A1S	-1.6287807	IHT	-1.0411474	XA	43.554552
LNGSTK	9.0182219	B1S	10.041302	IS	-3.0	XB	10.133491
COLSTK	10.222806	THETA0	10.222806	TH75MR	8.1428064	XC	48.392540
PEDAL	9.7795515	THETTR	19.070919	TH75TR	5.5709190	XP	54.492261
XAIN	4.3554551	XBIN	1.0133490	XCIN	4.8392540	XPIN	2.9425055
XBACTP	20.353826	XBACTI	2.0353826	RSTR.	0.0	PSTR	0.0
VXB	168.49340	THETAB	4.4169825	AA0F	4.4330706	QSTR	0.0
VYB	10.538105	PHIB	0.0	AA1F	-5.4631660	RSTR	0.0
VZB	13.015705	BETAWF	3.3736848	BB1F	0.16941802	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.0002702	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.37887204	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.41786320	MHITR	0.0
ALFWF	0.65760469	EKTX	1.3595830	EKWFX	0.92951579	LHITR	0.0
CHITPP	82.270446	EKTZ	1.6465924	EKWFZ	1.0077295	QHITR	0.0
EWTR	0.0	EPSWT	0.48373684	SIGWT	0.59376852	XITR	0.0
QWF	38.065721	KQHT	0.87177979	KQVT	0.83247253	YITR	0.0
MUXS	0.24547100	CTSIG	0.90085233E-1	LTOT	3.5331622	ZITR	0.0
MUYS	0.15312795E-1	CHSIG	-0.67155750E-2	DTOT	24.452018	LITR	0.0
MUZS	0.60722517E-2	COMSIG	0.79018591E-6	TTR	898.59902	MITR	0.0
LAMDMR	-0.97344651E-2	NZ	0.99679045	HFMR	1177.5302	NITR	0.0
DWSHMR	0.15806716E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.4621393
XMR	2396.7646	HBAR	-1404.2208	VXBDOT	-0.13490722E-1	AYP	-0.43255973E-1
YMR	-349.46253	JBAR	349.46253	VYBDOT	-0.17294303E-1	AZP	-32.073531
ZMR	-19903.121	TBAR	19904.131	VZBDOT	0.68196110E-2	VXP	168.49340
LMR	-5410.4126	LBARH	-1993.9741	PDOT	-0.11931120E-1	VYP	10.538105
MMR	3615.9116	MBARH	-13198.757	QDOT	0.87663020E-3	VZP	13.015705
NMR	24531.416	QBAR	25249.187	RDOT	0.16761166E-2	RSTR.	0.0
XWF	-910.88444	XT	-23.801894	XTR	0.0	PSIDMG	-150.0
YWF	-336.79717	YT	-168.47020	YTR	844.46965	BTR	4.0
ZWF	-144.97466	ZT	320.72285	ZTR	-377.36241	MADD	0.0
LWF	520.54290	LT	-375.38099	LTR	5186.7612	XADD	0.0
MWF	-3309.3500	MT	9333.0069	MTR	-9523.1120	YADD	0.0
NWF	-2979.0364	NT	4771.0222	NTR	-26164.484	ZADD	0.0
XHT	-12.257199	XVT	-11.544704	ALFHTT	-3.2744823	NADD	0.0
YHT	-1.5633538	YVT	-146.90685	ALFVTT	3.5723047	LADD	0.0
ZHT	320.27262	ZVT	0.45023344	AABB1F	5.4657922		

UTTAS(376) 1-21-77 9-DEC-77 RUN 24.

WEIGHT	19900.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	6260.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTP.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	734.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.2412029	A1S	-2.1545959	IHT	-2.7932671	XA	42.242481
LNGSTK	10.556190	B1S	12.095467	IS	-3.0	XB	12.698972
COLSTK	19.347892	THETA0	19.347892	TH75MR	9.2678929	XC	55.424332
PEDAL	9.0990772	THETTR	19.740548	TH75TR	6.2405486	XP	56.378694
XAIN	4.2242481	XBIN	1.2698972	XCIN	5.5424332	XPIN	3.0443703
XBACTP	13.182846	XBACTI	1.3182846	RSTR.	0.0	PSTR	0.0
VXB	202.37653	THETAB	3.6908997	AA0F	4.4399446	QSTR	0.0
VYB	11.282683	PHIB	0.0	AA1F	-6.3350158	RSTR	0.0
VZB	13.084149	BETAWF	3.0600500	BB1F	0.72793074E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.0197218	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.42263358	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.52650967	MHITR	0.0
ALFWF	1.7580231	EKTX	1.4151984	EKWFX	0.92336560	LHITR	0.0
CHITPP	81.797354	EKTZ	1.6414714	EKWFZ	1.0082026	QHITR	0.0
EKTR	0.0	EPSWT	0.48060049	SIGWT	0.53456879	XITR	0.0
QWF	52.995278	KQHT	0.87177979	KQVT	0.83397817	YITR	0.0
MUXS	0.29464009	CTSIG	0.91227919E-1	LTOT	4.1299011	ZITR	0.0
MUYS	0.16394733E-1	CHSIG	-0.73962822E-2	DTOT	24.509656	LITR	0.0
MUZS	0.35948713E-2	CQMSIG	0.79141118E-6	TTR	1079.6846	MITR	0.0
LAMBMR	-0.96315197E-2	NZ	0.99795217	HPMR	1392.9969	NITR	0.0
DWSMMR	0.13226391E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	2.0579582
XMR	2542.6446	HBAR	-1546.5649	VXBDOT	-0.12965316E-1	AYP	-0.52401133E-1
YMR	-378.97399	JBAR	378.97399	VYBDOT	-0.22267180E-1	AZP	-32.108374
ZMR	-18967.224	TBAR	19075.787	VZBDOT	-0.12950347E-2	VXP	202.37653
LMR	-6486.3585	LBARH	-2451.9144	PDOT	-0.14160191E-1	VYP	11.282683
MMR	777.58178	MBARH	-15267.140	QDOT	0.22708711E-2	VZP	13.084149
NMR	29061.721	QBAR	29069.330	RDOT	0.16331273E-2	RSTR.	0.0
XWF	-1273.6230	XT	-45.203449	XTR	0.0	PSIDMG	-150.0
YWF	-425.57035	YT	-223.31336	YTR	1014.6471	BTR	4.0
ZWF	-242.51184	ZT	530.12750	ZTR	-369.32208	MADO	0.0
LWF	659.48979	LT	-497.65230	LTR	6231.9973	XADD	0.0
MWF	-4283.9240	MT	15042.990	MTR	-11442.209	YADD	0.0
NWF	-3760.0431	NT	6231.3654	NTR	-31437.151	ZADD	0.0
XHT	-27.094164	XVT	-18.109285	ALFHTT	-3.8654490	NADD	0.0
YHT	-2.0503715	YVT	-221.26298	ALFVTT	3.1708531	LADD	0.0
ZHT	529.78850	ZVT	0.33900129	AABB1F	6.3354340		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 25.

WEIGHT	19900.0	FSCG	360.20000	V	140.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	545.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.7426680	A1S	-2.8255822	IHT	-3.9155398	XA	39.108325
LNGSTK	12.602532	B1S	14.787116	IS	-3.0	XB	5.4680836
COLSTK	20.993729	THETA0	20.993729	TH75MR	10.913729	XC	65.710812
PEDAL	8.4970889	THETTR	21.113564	TH75TR	7.6135644	XP	58.047546
XAIN	3.9108324	XBIN	0.54680836	XCIN	6.5710812	XPIN	3.1344859
XBACTP	4.2752385	XBACTI	0.42752385	RSTR.	0.0	PSTR	0.0
VXB	236.22823	THETAB	3.1344648	AA0F	4.4791231	QSTR	0.0
VYB	12.850036	PHIB	0.0	AA1F	-7.5695760	RSTR	0.0
VZB	12.936897	BETAWF	3.0183830	BB1F	-0.20720963	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.5788539	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.49828679	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.68751014	MHITR	0.0
ALFWF	1.1764397	EKTX	1.4998578	EKWFX	0.90869129	LHITR	0.0
CHIIPP	80.668562	EKTZ	1.6719488	EKWFZ	1.0093314	QHITR	0.0
EKTR	0.0	EPSWT	0.48018382	SIGWT	0.53123541	XITR	0.0
QWF	70.645015	KQHT	0.87177979	KQVT	0.83417800	YITR	0.0
MUXS	0.34374716	CTSIG	0.91857916E-1	LTOT	4.3249443	ZITR	0.0
MUYS	0.18672235E-1	CHSIG	-0.85578176E-2	DTOT	24.536608	LITR	0.0
MUZS	0.80690789E-3	CQMSIG	0.79839468E-6	TTR	1373.4589	MITR	0.0
LAMBMR	-0.10601267E-1	NZ	0.99977889	HPMR	1754.9047	NITR	0.0
DWSHMR	0.11408175E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.7454404
XMR	2792.0645	HBAR	-1789.4423	VXBDOT	-0.34997869E-1	AYP	0.53346055E-1
YMR	-412.42414	JBAR	412.42414	VYBDOT	0.33907569E-1	AZP	-32.191099
ZMR	-19086.055	TBAR	19207.519	VZBDOT	-0.43440247E-1	VXP	236.22823
LMR	-8042.7057	LBARH	-3402.7019	PDOT	0.15292613E-1	VYP	12.850036
MMR	-3476.6411	MBARH	-18220.176	QDOT	-0.12315566E-1	VZP	12.936897
NMR	36705.714	QBAR	37629.536	RDOT	0.35135876E-2	RSTR.	0.0
XWF	-1699.4948	XT	-69.632660	XTR	0.0	PSIDMG	-150.0
YWF	-559.69824	YT	-298.48634	YTR	1290.7252	BTR	4.0
ZWF	-340.60588	ZT	812.66837	ZTR	-469.78647	MADD	0.0
LWF	867.61338	LT	-664.83744	LTR	7927.6781	XADD	0.0
MWF	-5531.2277	MT	23051.252	MTR	-14555.550	YADD	0.0
NWF	-4944.7711	NT	8329.0489	NTR	-39990.969	ZADD	0.0
XHT	-44.626938	XVT	-25.005721	ALFHTT	-4.4857417	NADD	0.0
YHT	-2.8443798	YVT	-295.64196	ALFVTT	3.0883836	LADD	0.0
ZHT	812.41951	ZVT	0.24886309	AABB1F	7.5724115		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 26.

WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.2	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	3294.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-2.2161589	A1S	-3.4129692	IHT	-4.3206919	XA	36.149006
LNGSTK	14.149999	B1S	15.799999	IS	-3.0	XB	0.0
COLSTK	22.099517	THETAW	22.099517	TH75MR	12.019517	XC	72.621986
PEDAL	8.3825631	THETTR	22.325984	TH75TR	8.8259844	XP	58.365038
XAIN	3.6149006	XBIN	0.0	XCIN	7.2621986	XPIN	3.1516301
XBACTP	-2.2396354	XBACTI	-0.22396354	RSTR.	0.0	PSTR	0.0
VXB	253.29089	THETAB	2.3192952	AA0F	4.5582531	QSTR	0.0
VYB	13.781856	PHIB	0.0	AA1F	-7.6023783	RSTR	0.0
VZB	10.258742	BETAWF	3.0307912	BB1F	-0.37113694	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-8.8421291	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.55803757	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.68178652	MHITR	0.0
ALFWF	0.60601377	EKTX	1.5467929	EKWFX	0.90055587	LHITR	0.0
CHITPP	80.042760	EKTZ	1.6888454	EKWFZ	1.0099572	QHITR	0.0
EKTR	0.0	FPSWT	0.48730791	SIGWT	0.53341925	XITR	0.0
QWF	80.600742	KUHT	0.87177979	KQVT	0.83411850	YITR	0.0
MUXS	0.36830113	CTSIG	0.93234225E-1	LTOT	3.3031428	ZITR	0.0
MUYS	0.20026251E-1	CHSIG	-0.83591531E-2	DTOT	24.367962	LITR	0.0
MUZS	-0.43766047E-2	CQHSIG	0.81249943E-6	TTR	1597.6634	MITR	0.0
LAMBMR	-0.15174622E-1	NZ	1.0002731	HPMR	2033.4914	NITR	0.0
DWSHMR	0.10798017E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	1.0820484
XMR	2765.6452	HBAR	-1747.9015	VXBDOT	-0.20309890E-1	AYP	0.12180908
YMR	-482.65884	JBAR	482.65884	VYBDOT	0.59411686E-1	AZP	-31.899429
ZMR	-19375.599	TBAR	19495.306	VZBDOT	-0.35327247E-1	VXP	253.29089
LMR	-9240.3632	LBARH	-4066.7678	PDOT	0.33709084E-1	VYP	13.781856
MMR	-2859.7866	MBARH	-18239.872	QDOT	0.10844975	VZP	10.258742
NMR	42530.435	QBAR	43603.132	RDOT	-0.13412590E-3	RSTR.	0.0
XWF	-1929.8338	XT	-75.399421	XTR	0.0	PSIDMG	-150.0
YWF	-640.47434	YT	-343.04360	YTR	1521.4242	RTR	4.0
ZWF	-286.69081	ZT	1115.5512	ZTR	-546.47477	MADD	0.0
LWF	992.91430	LT	-762.80780	LTR	9221.7983	XADD	0.0
MWF	-7342.6055	MT	31644.102	MTR	-16931.609	YADD	0.0
NWF	-5666.7463	NT	9572.5640	NTR	-46519.125	ZADD	0.0
XHT	-46.710259	XVT	-28.689141	ALFHTT	-5.4067124	NADD	0.0
YHT	-3.6612336	YVT	-339.38236	ALFVTT	3.7594670	LADD	0.0
ZHT	1115.0077	ZVT	0.54353510	AABB1F	7.6114321		

UTTAS(S76) 1-21-77 9-DEC-77 RUN 27.

WEIGHT	19900.0	FSCG	360.20000	V	40.0	PSITR2	0.0		
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0		
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0		
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0		
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0		
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0		
KFR	15.0	PASCNT	1007.0	WLHT	234.0	FSVT	695.0		
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0		
LATSTK	-1.8691673	A1S	-2.6567322	IHT	28.714152	XA	38.317704		
LNGSTK	4.1675690	B1S	4.3391650	IS	-3.0	XB	35.273604		
COLSTK	18.126260	THETA0	18.126260	TH75MR	8.0462609	XC	47.789131		
PEDAL	12.762309	THETTR	21.937822	TH75TR	8.4378221	XP	46.223361		
XAIN	3.8317704	XBIN	3.5273604	XCIN	4.7789131	XPIN	2.4959965		
XBACTP	41.820482	XBACTI	4.1820482	RSTR.	0.0	PSTR	0.0		
VXB	67.405900	THETAB	4.3338896	AA0F	4.6145207	QSTR	0.0		
VYB	0.0	PHIB	-1.3741857	AA1F	-2.5366971	RSTR	0.0		
VZB	5.1086221	BETAWF	0.0	BB1F	-0.19851861	TITR	0.0		
P	0.0	GAMC	0.0	AA0L	-5.8288369	HITR	0.0		
Q	0.0	OMGRAT	1.0	AA1L	0.29556190	JITR	0.0		
R	0.0	PSIDOT	0.0	BB1L	0.13382036	MHITR	0.0		
ALFWF	-13.715266	EKTX	1.1083357	EKWFX	0.76153832	LHITR	0.0		
CHITPP	67.810641	EKTZ	2.0450841	EKWFZ	1.0243787	QHITR	0.0		
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0		
QWF	9.5327540	KQHT	0.87177979	KQVT	0.84852813	YITR	0.0		
MUXS	0.98193366E-1	CTSIG	0.91022367E-1	LTOT	-21.916640	ZITR	0.0		
MUYS	0.0	CHSIG	-0.32369161E-2	DTOT	26.858188	LITR	0.0		
MUZS	0.22865483E-2	CQHSIG	0.82252902E-6	TTR	972.90912	MITR	0.0		
LAMBMR	-0.35075828E-1	NZ	0.99705450	HPMR	1350.3658	NITR	0.0		
DWSHMR	0.37362377E-1	VC	0.11183023	KTRBLK	1.0	AXP	2.4749037		
XMR	1671.9300	HBAR	-676.84018	VXBDOT	0.42745251E-1	AYP	0.76263865		
YMR	-455.56431	JBAR	455.56431	VYBDOT	-0.89118836E-2	AZP	-32.079715		
ZMR	-18969.822	TBAR	19032.806	VZBDOT	-0.93508340E-2	VXP	67.405900		
LMR	-5595.1043	LBARH	-1346.8160	PDOT	0.30914651E-3	VYP	0.0		
MMR	15231.157	MBARH	-6045.0067	QDOT	-0.24649542E-3	VZP	5.1086221		
NMR	28090.803	QBAR	28955.214	RDOT	-0.65380024E-3	RSTR.	0.0		
XWF	-199.19360	XT	-4.8711225	XTR	0.0	PSIDMG	-150.0		
YWF	0.0	YT	-7.5864569	YTR	914.30350	BTR	4.0		
ZWF	263.67518	ZT	7.1504856	ZTR	-332.77990	MADD	0.0		
LWF	0.0	LT	-17.132748	LTR	5615.6831	XADD	0.0		
MWF	-5134.6506	MT	203.87240	MTR	-10310.630	YADD	0.0		
NWF	0.0	NT	211.66214	NTR	-28328.169	ZADD	0.0		
XHT	-2.8771792	XVT	-1.9939432	ALFHTT	-0.10366630	NADD	0.0		
YHT	0.0	YVT	-7.5864569	ALFVTT	0.0	LADD	0.0		
ZHT	6.0535038	ZVT	1.0969817	AARBIF	2.5444532				

UTTAS(976)   1-21-77   9-DEC-77   RUN 28.

WEIGHT	19900.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0		
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0		
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0		
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0		
OMEGMR	25.649999	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0		
OMEGTR	118.32250	NSSS	5.0	THSTTR	-18.0	WLVT	273.0		
KFR	15.0	PASCNT	982.0	WLHT	234.0	FSVT	695.0		
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0		
LATSTK	-0.36749148	A1S	-1.3241685	IHT	30.697228	XA	47.703178		
LNGSTK	3.0944746	B1S	2.0743218	IS	-3.0	XB	39.065460		
COLSTK	19.768126	THETA0	19.768126	TH75MR	9.6881264	XC	58.050790		
PEDAL	18.706017	THETTR	29.851769	TH75TR	16.351769	XP	29.746014		
XAIN	4.7703177	XBIN	3.9065459	XCIN	5.8050790	XPIN	1.6062430		
XBACTP	46.041374	XBACTI	4.6041374	RSTR.	0.0 •	PSTR	0.0		
VXB	0.16822472E-1	THETAB	5.4629340	AA0F	4.6820725	QSTR	0.0		
VYB	0.0	PHIB	-2.6765260	AA1F	-2.2182575	RSTR	0.0		
VZB	0.16088999E-2	BETAWF	0.0	BB1F	-1.4645583	TITR	0.0		
P	0.0	GAMC	0.0	AA0L	-8.0651009	HITR	0.0		
Q	0.0	OMGRAT	1.0	AA1L	-0.22487871E-1	JITR	0.0		
R	0.0	PSIDOT	0.0	BB1L	0.21044385	MHITR	0.0		
ALFWF	-10.260523	EKTX	-0.25213616	EKWFX	0.79995393E-5	LHITR	0.0		
CHITPP	-2.1910892	EKTZ	0.20412232	EKWFZ	0.11099360E-3	QHITR	0.0		
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0		
Q-F	0.36167898E-6	KQWT	0.87177979	KQVT	0.84852813	YITR	0.0		
MUXS	0.24531487E-4	CTSIG	0.88923043E-1	LTOT	-13.625257	ZITR	0.0		
MUYS	0.0	CHSIG	-0.40404397E-2	DTOT	25.186093	LITR	0.0		
MUZS	0.10551983E-5	COMSIG	0.83457001E-6	TTR	1347.8544	MITR	0.0		
LAMBMR	-0.61719096E-1	NZ	0.99428142	HPMR	1869.0108	NITR	0.0		
DWSHMR	0.61720152E-1	VC	0.11069350E-3	KTRBLK	0.79599999	AXP	3.0681585		
XMR	1816.7305	HBAR	-844.85722	VXBDOT	0.51284425E-2	AYP	1.5337919		
YMR	-357.41280	JBAR	357.41280	VYBDOT	0.37104653E-1	AZP	-31.989777		
ZMR	-18522.695	TBAR	18593.836	VZBDOT	-0.49957807E-3	VXP	0.16822472E-1		
LMR	-7775.9733	LBARH	-3538.0776	PDOT	0.61539030E-3	VYP	0.0		
MMR	14141.985	MBARH	-5526.8327	QDOT	-0.93072853E-5	VZP	0.16088999E-2		
NMR	39243.880	QBAR	40076.256	RDOT	-0.24697855E-4	PSTR.	0.0		
XWF	-0.87862249E-5	XT	3.5121724	XTR	0.0	PSIDMG	-150.0		
YWF	0.0	YT	-0.47453867E-6	YTR	1266.6630	BTP	4.0		
ZWF	0.64712318E-5	ZT	4.8799329	ZTR	-461.02855	MADD	0.0		
LWF	0.0	LT	-0.10716665E-5	LTR	7779.8875	XADD	0.0		
MWF	-0.15602244E-3	MT	141.82900	MTR	-14284.201	YADD	0.0		
NWF	0.0	NT	0.13239628E-4	NTR	-39245.443	ZADD	0.0		
XHT	3.5121726	XVT	-0.11058005E-6	ALFHTT	-8.3330001	NADD	0.0		
YHT	0.0	YVT	-0.47453867E-6	ALFVTT	0.0	LADD	0.0		
ZHT	4.8799329	ZVT	0.89442706E-7	AABB1F	2.6581191				

WEIGHT	19900.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0
IX	6260.0	WLCG	245.89999	DELS	-5.0	VXSTP.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2623.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	0.13636255	A1S	-0.82912048	IHT	33.328845	XA	50.852266
LNGSTK	7.7839550	B1S	3.7938576	IS	-3.0	XB	22.494858
COLSTK	19.853621	THETA0	19.853621	TH75MR	9.7736216	XC	58.585136
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	5.0852265	XBIN	2.2494858	XCIN	5.8585135	XPIN	0.0
XBACTP	30.149089	XBACTI	3.0149089	RSTR.	0.0	PSTR	0.0
VXB	0.16763858E-1	THETAB	7.2479777	AA0F	4.7528417	QSTR	0.0
VYB	0.0	PHIB	-1.4729578	AA1F	-4.0797753	RSTR	0.0
VZB	0.21320109E-2	BETAWF	0.0	BB1F	-0.96107339	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-7.4819529	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.58621463E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.34473497	MHITR	0.0
ALFWF	-8.6804928	EKTX	-0.12803497	EKWFX	0.79995393E-5	LHITR	0.0
CHITPP	-4.0527791	EKTZ	0.39700355E-1	EKWFZ	0.11099360E-3	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	0.35600529E-6	KQHT	0.87177979	KQVT	0.84852813	YITR	0.0
MUXS	0.24486219E-4	CTSIG	0.90029798E-1	LTOT	-10.888788	ZITR	0.0
MUYS	0.0	CHSIG	-0.68166299E-2	DTOT	24.669425	LITR	0.0
MUZS	0.18186813E-5	CQMSIG	0.84718447E-6	TTR	593.69585	MITR	0.0
LAMBMR	-0.62080978E-1	NZ	0.99162015	HPMR	1748.8470	NITR	0.0
DWSHMR	0.62082797E-1	VC	0.49767550E-4	KTRBLK	0.79599999	AXP	3.8408287
XMR	2408.5035	HBAR	-1425.3594	VXBDOT	-0.73470692E-3	AYP	-0.48010424
YMR	-73.100026	JBAR	73.100026	VYBDOT	-0.31529178E-2	AZP	-31.904845
ZMR	-18723.402	TBAR	18825.259	VZBDOT	-0.20884338E-2	VXP	0.16763858E-1
LMR	-4640.4345	LBARH	-2242.3203	PDOT	-0.18408023E-2	VYP	0.0
MMR	6342.4365	MBARH	-10125.101	QDOT	0.12423674E-3	VZP	0.21320109E-2
NMR	37207.324	QBAR	37499.645	RDOT	0.52104568	RSTR.	0.0
XWF	-0.80972089E-5	XT	-0.90238589	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-0.47546759E-6	YTR	557.93309	BTR	2.0
ZWF	0.51568951E-5	ZT	-1.5712545	ZTR	-203.07143	MADD	0.0
LWF	0.0	LT	-0.10737643E-5	LTR	3426.8439	XADD	0.0
MWF	-0.13553640E-3	MT	-45.439933	MTR	-6291.8297	YADD	0.0
NWF	0.0	NT	0.13265545E-4	NTR	-17286.626	ZADD	0.0
XHT	-0.90238575	XVT	-0.13621705E-6	ALFHTT	16.081275	NADD	0.0
YHT	0.0	YVT	-0.47546759E-6	ALFVTT	0.0	LADD	0.0
ZHT	-1.5712546	ZVT	0.42290486E-7	AABB1F	4.1914470		

WEIGHT	19900.0	FSCG	360.20000	V	40.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSBS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	4650.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.8257474	A1S	-2.6126145	IHT	28.898258	YA	38.589078
LNGSTK	0.8968583	B1S	4.4038614	IS	-3.0	XB	18.562337
COLSTK	18.119485	THETA0	18.119485	TH75MR	8.0394855	XC	47.746785
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	3.8589078	XBIN	1.8562337	XCIN	4.7746784	XPIN	0.0
XBACTP	25.159423	XBACTI	2.5159423	RSTR.	0.0	PSTR	0.0
VXB	67.392324	THETAB	4.4660155	AA0F	4.6140782	QSTR	0.0
VYB	0.0	PHIB	-1.2494472	AA1F	-2.6150344	RSTR	0.0
VZB	5.2639111	BETAWF	0.0	BB1F	-0.14973264	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.7752445	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.30263166	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.13951417	MHITR	0.0
ALF.F	-13.628433	EKTX	1.1119591	EKWFX	0.76184621	LHITR	0.0
CHITPP	67.834324	EKTZ	2.0426697	EKWFZ	1.0243313	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	9.5275253	KQHT	0.87177979	KQVT	0.84852813	YITR	0.0
MUXS	0.98185476E-1	CTSIG	0.91025017E-1	LTOT	-21.708241	ZITR	0.0
MUYS	0.0	CHSIG	-0.33446684E-2	DTOT	26.816161	LITR	0.0
MUZS	0.25129026E-2	COMSIG	0.82245016E-6	TTR	915.57033	MITR	0.0
LAMBMR	-0.34875999E-1	NZ	0.99664761	HPMR	1337.4117	NITR	0.0
DWSHMR	0.37388902E-1	VC	0.10474920	KTRBLK	1.0	AXP	2.4865005
XMR	1694.4574	HBAR	-699.37122	VXBDOT	-0.32944787E-2	AYP	0.60778162
YMR	-438.06373	JBAR	438.06373	VYBDOT	-0.26279674E-3	AZP	-32.065842
ZMR	-18969.196	TBAR	19033.360	VZBDOT	-0.16534635E-2	VXP	67.392324
LMR	-5353.1528	LBARH	-1224.2850	PDOT	-0.15701076E-3	VYP	0.0
MMR	14900.581	MBARH	-6239.3115	QDOT	0.14667156E-3	VZP	5.2639111
NMR	27848.737	QBAR	28677.444	RDOT	0.36663021E-1	RSTR.	0.0
XWF	-199.56271	XT	-10.495076	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-7.5867556	YTR	860.41864	BTR	2.0
ZWF	261.20418	ZT	-2.8503125	ZTR	-313.16738	MADD	0.0
LWF	0.0	LT	-17.133423	LTR	5284.7205	XADD	0.0
MWF	-5106.2943	MT	-85.217752	MTR	-9702.9694	YADD	0.0
NWF	0.0	NT	211.67048	NTR	-24658.637	ZADD	0.0
XHT	-8.4987609	XVT	-1.9963154	ALFHTT	0.19954133	NADD	0.0
YHT	0.0	YVT	-7.5867556	ALFVTT	0.0	LADD	0.0
ZHT	-3.9431992	ZVT	1.0928866	AABB1F	2.6193175		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 31.

WEIGHT	19900.0	FSCG	360.20000	V	60.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	3038.0	WLHT	234.0	FSVT	695.0
FSHT	708.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1511648	A1S	-1.8700291	IHT	14.765413	XA	42.805220
LNGSTK	9.9789280	B1S	5.2944673	IS	-3.0	XB	14.738769
COLSTK	17.459265	THETA0	17.459265	TH75MR	7.3792651	XC	43.620407
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.2805219	XBIN	1.4738769	XCIN	4.3620407	XPIN	0.0
XBACTP	19.520119	XBACTI	1.9520119	RSTR.	0.0	PSTR	0.0
VXB	101.20600	THETAB	3.5078164	AA0F	4.4593772	QSTR	0.0
VYB	15.065280	PHIB	0.0	AA1F	-2.2976745	RSTR	0.0
VZB	6.2043178	BETAWF	7.3236017	BB1F	-0.55862662E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.8709755	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.26150579	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.85494901E-1	MHITR	0.0
ALFWF	-5.6729245	EKTX	1.3554988	EKWFX	0.88184741	LHITR	0.0
CHITPP	78.349765	EKTZ	1.8546667	FKWFZ	1.0116502	QHITR	0.0
EKTH	0.0	EPSWT	0.52323601	SIGWT	1.1681266	XITR	0.0
QWF	16.627011	KQHT	0.87177979	KQVT	0.77223721	YITR	0.0
MUXS	0.14732010	CTSIG	0.90065102E-1	LTOT	-3.6119588	ZITR	0.0
MUYS	0.21891150E-1	CHSIG	-0.28275913E-2	DTOT	26.173346	LITR	0.0
MUZS	0.13060063E-2	CQHSIG	0.79487501E-6	TTR	947.90642	MITR	0.0
LAMHMR	-0.24251926E-1	NZ	0.99806743	HPMR	1134.3126	NITR	0.0
DWSHMR	0.25557933E-1	VC	0.0	KTRBLK	1.0	AXP	2.0086864
XMR	1575.9885	HBAR	-591.25023	VXBDOT	0.13936438E-2	AYP	0.23517780
YMR	-451.72947	JBAR	451.72947	VYBDOT	0.90582442E-3	AZP	-32.110970
ZMR	-18774.426	TBAR	18832.641	VZBDOT	0.62550137E-3	VXP	101.20600
LMR	-5578.6198	LBARH	-1596.1648	PDOT	0.10340231E-2	VYP	15.065280
MMR	15933.900	MBARH	-5595.6919	QDOT	0.16919067E-3	VZP	6.2043178
NMR	23458.071	QBAR	24322.492	RDOT	-0.93570869E-1	RSTR.	0.0
XWF	-389.58300	XT	-17.649534	XTR	0.0	PSIDMG	-150.0
YWF	-321.16253	YT	-117.37749	YTR	890.80690	BTR	2.0
ZWF	99.834800	ZT	-51.491177	ZTR	-324.22782	MADD	0.0
LWF	589.86878	LT	-260.26586	LTR	5471.3662	XADD	0.0
MWF	-4391.8109	MT	-1489.3947	MTR	-10045.658	YADD	0.0
NWF	-2712.4412	NT	3275.4982	NTR	-27600.166	ZADD	0.0
XMT	-21.508308	XVT	3.8587732	ALFHTT	1.0558561	NADD	0.0
YMT	-1.4805063	YVT	-115.89698	ALFVTT	9.4287328	LADD	0.0
ZMT	-50.549835	ZVT	-0.94134230	AABB1F	2.2983534		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 32.

WEIGHT	19900.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	6268.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	41587.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2579.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1469044	A1S	-1.8769543	IHT	0.83864964	XA	42.831847
LNGSTK	13.110532	B1S	8.4575651	IS	-3.0	XB	3.6730300
CULSTK	17.567863	THETA0	17.567863	TH75MR	7.4878636	XC	44.299148
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.2831847	XBIN	0.36730300	XCIN	4.4299147	XPIN	0.0
XBACTP	7.6243394	XBACTI	0.76243394	RSTR.	0.0	PSTR	0.0
VXB	134.64921	THETAB	5.1250476	AA0F	4.4558721	QSTR	0.0
VYB	15.445096	PHIB	0.0	AA1F	-4.7721582	RSTR	0.0
VZB	12.076956	RETAWF	5.9965925	BB1F	-0.12280867	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.8759070	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.32841090	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.33471029	MHITR	0.0
ALFWF	-0.60300827	EKTX	1.3803288	EKWFX	0.92117753	LHITR	0.0
CHITPP	81.629042	EKTZ	1.6869439	EKWFZ	1.0083709	QHITR	0.0
EKTW	0.0	EPSWT	0.50996591	SIGWT	1.0035774	XITR	0.0
QWF	26.013894	KQHT	0.87177979	KQVT	0.80257252	YITR	0.0
MUXS	0.19629224	CTSIG	0.90826236E-1	LTOT	2.4757086	ZITR	0.0
MUYS	0.22443087E-1	CHSIG	-0.63126120E-2	DTOT	25.177955	LITR	0.0
MUZS	0.72838734E-2	CQMSIG	0.79425024E-6	TTR	1054.9689	MITR	0.0
LAMBMR	-0.12353283E-1	NZ	0.99614387	HPMR	1124.5401	NITR	0.0
DWSHMR	0.19637156E-1	VC	0.71525573E-5	KTPBLK	1.0	AXP	2.9354164
XMR	2311.9813	HBAR	-1319.9691	VXBDOT	-0.65732426E-2	AYP	0.42255177
YMR	-405.38354	JBAR	405.38354	VYBDOT	0.10056156E-1	AZP	-32.048295
ZMR	-18895.212	TBAR	18991.795	VZBDOT	-0.78052038E-2	VXP	134.64921
LMR	-5934.6869	LBARH	-2242.3624	PDOT	0.59549946E-2	VYP	15.445096
MMR	5660.6145	MBARH	-11649.978	QDOT	-0.33937055E-3	VZP	12.076956
NMR	23291.512	QBAR	24112.946	RDOT	-0.16168933	RSTR.	0.0
XWF	-616.22910	XT	5.4142184	XTR	0.0	PSIDMG	-150.0
YWF	-409.76730	YT	-170.30329	YTR	991.42020	ATR	2.0
ZWF	-57.[illegible]12014	ZT	299.57867	ZTR	-360.84814	MADD	0.0
LWF	632.45874	LT	-376.76512	LTR	6089.3365	XADD	0.0
MWF	-2995.3109	MT	8500.8613	MTR	-11180.278	YADD	0.0
NWF	-3520.7089	NT	4752.5471	NTR	-30717.502	ZADD	0.0
XHT	6.1732542	XVT	-0.75903575	ALFHTT	-4.1694856	NADD	0.0
YHT	-2.4112292	YVT	-167.89206	ALFVTT	6.8746774	LADD	0.0
ZHT	299.51216	ZVT	0.66518381E-1	AABB1F	4.7737381		

UTTAS(976) 1-21-77 9-DEC-77 RUN 33.

WEIGHT	16450.0	FSCG	360.20000	V	60.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
N.TR	15.0	PASCNT	671.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.94260293	A1S	-1.7481178	IHT	21.823440	XA	44.108731
LNGSTK	4.2111382	B1S	4.5151154	IS	-3.0	XB	35.119652
COLSTK	18.300533	THETA0	18.300533	TH75MR	8.2205332	XC	48.878333
PEDAL	12.436823	THETTR	21.821462	TH75TR	8.3214628	XP	47.125684
XAIN	4.4108731	XBIN	3.5119652	XCIN	4.8878332	XPIN	2.5447207
XBACTP	39.414441	XBACTI	3.9414440	RSTR.	0.0	PSTR	0.0
VXB	101.32364	THETAB	2.2407646	AA0F	3.7145780	QSTR	0.0
VYB	13.342627	PHIB	0.0	AA1F	-1.1332231	RSTR	0.0
VZB	3.9646871	BETAWF	6.3795790	BB1F	0.63350257E-1	TITR	0.0
P	0.0	GAMC	0.0	AAPL	-4.1586307	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.19218300	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.76642221E-2	MHITR	0.0
ALF.F	-7.6400651	EKTX	1.2795491	EKWFX	0.86924564	LHITR	0.0
CHITPP	77.204151	EKTZ	1.9221221	EKWFZ	1.0127958	QHITR	0.0
EKTR	0.0	EPSWT	0.51379578	SIGHT	1.0510678	XITR	0.0
Q.F	12.630386	KQHT	0.87177979	KQVT	0.79393649	YITR	0.0
MUXS	0.14732047	CTSIG	0.99844726E-1	LTOT	-6.9481885	ZITR	0.0
MUYS	0.19380013E-1	CMSIG	-0.11149857E-2	DTOT	26.189206	LITR	0.0
MUZS	-0.19526075E-2	CQMSIG	0.89972114E-6	TTR	705.08276	MITR	0.0
LAMBMR	-0.37402836E-1	NZ	0.99935601	HPMR	970.83558	NITR	0.0
D.SMMR	0.20450229E-1	VC	0.0	KTRBLK	1.0	AXP	1.2634751
XMR	975.39353	HBAR	-171.57349	VXBDOT	0.50835826E-2	AYP	0.55202388E-2
YMR	-368.83724	JBAR	368.83724	VYBDOT	0.10096050E-2	AZP	-32.152806
ZMR	-15332.832	TBAR	15364.260	VZBDOT	-0.35065620E-2	VXP	101.32364
LMR	-4300.4755	LBARH	-978.26990	PDOT	0.22846833E-2	VYP	13.342627
MMR	16862.931	MBARH	-2766.3351	QDOT	-0.19230634E-3	VZP	3.9646871
NMR	20121.478	QBAR	20817.137	RDOT	-0.12201688E-3	RSTR.	0.0
XWF	-294.62806	XT	-66.856969	XTR	0.0	PSIDMG	-150.0
YWF	-212.92153	YT	-80.360834	YTR	662.61033	BTR	4.0
ZWF	128.04113	ZT	-181.96701	ZTR	-241.17090	MADD	0.0
LWF	418.62241	LT	-175.92013	LTR	4069.7751	XADD	0.0
MWF	-4169.9575	MT	-5228.3519	MTR	-7472.2785	YADD	0.0
NWF	-1844.2687	NT	2242.8373	NTR	-29529.876	ZADD	0.0
XMT	-67.913007	XVT	1.0546380	ALFHTT	4.8679609	NADD	0.0
YMT	-1.7112039	YVT	-78.649629	ALFVTT	0.1235055	LADD	0.0
ZMT	-181.64584	ZVT	-0.32196812	AABB1F	1.1349925		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 34.

WEIGHT	16450.0	FSCG	360.20000	V	60.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17520000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2078.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.94579690	A1S	-1.7511792	IHT	21.813925	XA	44.088769
LNGSTK	0.4949164	B1S	4.5132879	IS	-3.0	XB	19.982627
COLSTK	18.299245	THETA0	18.299245	TH75MR	0.2192455	XC	48.870285
PEDAL	27.790575	THETTR	37.173670	TH75TR	23.673670	XP	4.5614996
XAIN	4.4088768	XBIN	1.9982627	XCIN	4.8870285	XPIN	0.24631457
XBACTP	24.280559	XBACTI	2.4280559	RSTR.	0.0	PSTR	0.0
VXB	101.32288	THETAB	2.2489515	AAPF	3.7141217	QSTR	0.0
VYB	13.210032	PHIB	0.0	AA1F	-1.1347947	RSTR	0.0
VZB	3.9791581	BETAWF	6.3166594	AB1F	0.64744271E-1	TITR	0.0
P	0.0	GAMC	0.0	AAPL	-4.1567302	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.19240165	JITR	0.0
R	0.0	PSIDOT	0.0	AB1L	-0.74801997E-2	MHITR	0.0
ALFWF	-7.6336293	EKTX	1.2797893	EKWFX	0.86930724	LHITR	0.0
CHITPP	77.209750	EKTZ	1.9219297	EKWFZ	1.0127902	QHITR	0.0
EKTW	0.0	EPSWT	0.51316659	SIGWT	1.0432657	XITR	0.0
QWF	12.627252	KQHT	0.87177979	KQVT	0.79536171	YITR	0.0
MUXS	0.14732047	CTSIG	0.99827980E-1	LTOT	-6.9504752	ZITR	0.0
MUYS	0.19195341E-1	CHSIG	-0.11192057E-2	DTOT	26.149549	LITR	0.0
MUZS	-0.19315526E-2	COMSIG	0.89961062E-6	TTR	703.51300	MITR	0.0
LAMBMR	-0.30383589E-1	NZ	0.99915147	HPMR	970.40505	NITR	0.0
DWSHMR	0.20852036E-1	VC	2.1780139 3E-5	KTRBLK	1.0	AXP	1.2637517
XMR	975.92710	HBAR	-172.22286	VXBDOT	0.16769313E-2	AYP	0.58936808E-2
YMR	-368.34770	JBAR	368.34770	VYBDOT	0.46688959E-2	AZP	-32.145743
ZMR	-15330.225	TBAR	15361.484	VZBDOT	0.28332278E-2	VXP	101.32288
LMR	-4292.8345	LBARH	-974.07132	PDOT	0.18151293E-2	VYP	13.210032
MMR	16852.569	MBARH	-2769.2469	QDOT	0.80368959E-4	VZP	3.9791581
NMR	20113.295	QBAR	20007.906	RDOT	0.85291750E-3	RSTR.	0.0
XWF	-294.49805	XT	-66.924606	XTR	0.0	PSIDMG	-150.0
YWF	-210.73962	YT	-79.778521	YTR	661.13513	RTR	2.0
ZWF	127.99588	ZT	-191.86710	ZTR	-240.63397	MADD	0.0
LWF	414.13668	LT	-174.67263	LTR	4060.7144	XADD	0.0
MWF	-4168.5065	MT	-5225.2204	MTR	-7455.6426	YADD	0.0
NWF	-1928.0261	NT	2226.5814	NTR	-20484.170	ZADD	0.0
XHT	-67.862962	XVT	0.93835696	ALFHTT	4.8669686	NADD	0.0
YHT	-1.6904175	YVT	-78.088193	ALFVTT	0.0264282	LADD	0.0
ZHT	-181.58116	ZVT	-0.28593661	AABB1F	1.1366401		

UTTAS(976)   1-21-77   9-DEC-77   RUN 35.

WEIGHT	16450.0	FSCG	360.20000	V	80.0	PSITR2	0.0
IX	5132.0	BLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17522822E-2	VSOUND	1277.0	VYSTR.	0.0
IZ	37363.0	TIME	0.26000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	T-STMR	-10.0	PSTR.	0.0
OMEGTR	119.32250	NSSS	5.0	T-STTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1574.0	WLMT	236.0	FSVT	695.0
FSMT	720.40000	RMT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.81628921	A1S	-1.6279634	IMT	9.8922768	XA	44.899442
LNGSTK	9.6362964	B1S	6.5284222	IS	-3.0	XB	15.952100
CCLSTK	10.362274	THETA0	10.362274	T-75MR	8.0822743	XC	49.264215
PEDAL	24.795866	THETTR	34.255195	T-75TR	22.755195	XP	12.861869
XAIN	4.4899442	XBIN	1.5956188	XCIN	4.9264215	XPIN	0.69452292
XBACTP	10.957479	XBACTI	1.0957479	BSTR.	0.0	PSTR	0.0
VXB	135.24313	THETAB	0.6855655	AA0F	3.6887641	QSTR	0.0
VYB	11.324154	PHIB	0.0	AA1F	-2.3221111	RSTR	0.0
VZB	6.3345513	BETAWF	4.3687165	BB1F	0.16438822	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.9767398	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	2.23383267	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.72752168E-1	MHITR	0.0
ALFAF	-3.3934359	EKTX	1.3247715	EK-FX	0.91354372	LHITR	0.0
CHITPP	81.281771	EKTZ	1.7852217	EK-FZ	1.2089582	QHITR	0.0
EXTA	0.0	EPSWT	0.49348716	SIG-T	0.76457012	XITR	0.0
G-F	19.546990	WSWT	0.87177979	WSVT	0.82779361	YITR	0.0
MUXS	0.19642712	CTSIG	0.12029982	LTOT	-1.3342366	ZITR	0.0
MUYS	0.16458994E-1	CHSIG	-0.26443384E-2	DTOT	24.468943	LITR	0.0
MUZS	-0.12782224E-2	CQMSIG	0.89348867E-6	TTR	691.22712	MITR	0.0
LAMBMR	-0.22916135E-1	NZ	0.99920615	HPMR	929.59127	NITR	0.0
DOSHMR	0.21837915E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.5293677
X-B	1214.2536	HBAR	-426.99958	VXBDOT	0.16234833E-2	AYP	-0.45698626E-2
Y-B	-329.79232	JBAR	329.79250	VYBDOT	-0.41774262E-2	AZP	-32.142574
Z-B	-15392.442	TBAR	15434.208	VZBDOT	-0.53537733E-2	VXP	135.24313
L-B	-4154.7428	LBARM	-1115.5277	PDOT	-0.18725945E-2	VYP	11.324154
M-B	12687.848	MBARM	-5591.7285	QDOT	0.12113864E-3	VZP	6.3345513
N-B	19296.226	GBAR	19932.756	RDOT	-0.12327781E-2	RSTR.	0.0
X-F	-462.21148	XT	-20.562972	XTR	0.0	PSIDMG	-152.0
Y-F	-222.59372	YT	-99.116948	YTR	649.38255	RTR	0.0
Z-F	53.424962	ZT	-69.084247	ZTR	-236.35637	MADD	0.0
L-F	380.66872	LT	-221.24263	LTR	3988.5296	XADD	0.0
M-F	-3958.3284	MT	-1421.5889	MTR	-7323.1283	YADD	0.0
N-F	-1983.5753	NT	2765.7223	NTR	-22122.235	ZADD	0.0
X-T	-17.312146	XVT	-3.2527559	ALFHTT	0.94531571	NADD	0.0
Y-T	-0.79891695	YVT	-98.310232	ALFVTT	4.8643142	LADD	0.0
Z-T	-49.596329	ZVT	0.51228176	AARB1F	0.3259782		

WEIGHT	16450.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	118.32258	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1301.0	WLHT	234.0	FSVT	695.0
FSHT	780.40000	SHT	45.0	SVT	32.300000	QSTW.	0.0
LATSTK	-0.82013416	A1S	-1.6950889	IHT	1.7115743	XA	44.874161
LNGSTK	12.159046	B1S	9.3162680	IS	-3.0	XB	7.0351728
COLSTK	18.973929	THETA0	18.973929	TH75MR	8.8939298	XC	53.087062
PEDAL	24.411169	THETTR	34.603885	TH75TR	21.103885	XP	13.930001
XAIN	4.4874161	XBIN	0.70351728	XCIN	5.3087062	XPIN	0.75220251
XBACTP	8.8531192	XBACTI	0.88531192	RSTR.	0.0	PSTR	0.0
VXB	168.69628	THETAB	3.3011251	AAPF	3.7014791	QSTR	0.0
VYB	11.332385	PHIB	0.0	AA1F	-4.0857342	RSTR	0.0
VZB	9.9672987	BETAWF	3.5995326	AB1F	0.15721903	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.3326761	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.30046281	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.21517150	MHITR	0.0
ALFWF	-0.73886871	EKTX	1.3153572	EKWFX	0.92816403	LHITR	0.0
CHITPP	82.166465	EKTZ	1.6953143	EKWFZ	1.0078335	QHITR	0.0
EKTR	0.0	EPSWT	0.48599532	SIGWT	0.63351777	XITR	0.0
QWF	28.472930	KQHT	0.87177979	KQVT	0.83138663	YITR	0.0
MUXS	0.24553356	CTSIG	0.10122313	LTOT	1.5531706	ZITR	0.0
MUYS	0.16466954E-1	CHSIG	-0.51581514E-2	DTOT	24.299906	LITR	0.0
MUZS	0.16336345E-2	CQMSIG	0.89654839E-6	TTR	765.63526	MITR	0.0
LAMBMR	-0.16891851E-1	NZ	0.99863286	HPMR	1010.1277	NITR	0.0
DWSHMR	0.17725485E-1	VC	0.0	KTRBLK	1.0	AXP	1.0942200
XMR	1606.5243	MBAR	-792.58293	VXBDOT	-0.66367910E-2	AYP	0.11113894E-2
YMR	-319.95071	JBAR	319.95071	VYBDOT	0.95909241E-3	AZP	-32.134423
ZMR	-15512.138	TBAR	15576.169	VZBDOT	-0.13833067E-1	VXP	168.69628
LMR	-4553.7545	LBARM	-1404.3110	PDOT	-0.34269634E-3	VYP	11.332385
MMR	6131.2087	MBARM	-9973.7326	QDOT	-0.17180089E-2	VZP	9.9672987
NMR	21817.718	QBAR	21659.658	RDOT	-0.31547496E-3	RSTR.	0.0
XWF	-676.86624	XT	-10.584363	XTR	0.0	PSIDMG	-150.0
YWF	-268.46657	YT	-130.63183	YTR	719.51529	BTR	2.0
ZWF	-35.475472	ZT	192.87872	ZTR	-261.88265	MADD	0.0
LWF	424.72847	LT	-291.29146	LTR	4419.2873	XADD	0.0
MWF	-3569.5223	MT	5482.9787	MTR	-8113.9976	YADD	0.0
NWF	-2380.8764	NT	3645.1431	NTR	-22292.981	ZADD	0.0
XHT	-2.7207517	XVT	-7.8636114	ALFHTT	-2.5455529	NADD	0.0
YHT	-1.1442391	YVT	-129.48759	ALFVTT	3.8530306	LADD	0.0
ZHT	192.29334	ZVT	0.58538124	AABB1F	4.0887579		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 37.

WEIGHT	16450.0	FSCG	369.20000	V	60.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39915.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	965.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.81077867	A1S	-1.3802802	IHT	19.613130	XA	44.932633
LNGSTK	7.9360415	B1S	3.5765435	IS	-3.0	XB	21.957450
COLSTK	16.086811	THETA0	16.086811	TH75MR	6.0068114	XC	35.042572
PEDAL	26.845622	THETTR	33.573796	TH75TR	20.073796	XP	7.1811303
XAIN	4.4932633	XBIN	2.1957449	XCIN	3.5042572	XPIN	0.38777095
XBACTP	26.310085	XBACTI	2.6310085	RSTR.	0.0	PSTR	0.0
VXB	101.30966	THETAB	2.3914042	AA0F	2.6198938	QSTR	0.0
VYB	16.478456	PHIB	0.0	AA1F	-1.3754625	RSTR	0.0
VZB	4.2309563	BETAWF	7.8676338	BB1F	-0.18690767E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.2337521	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.13158246	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.61676479E-1	MHITR	0.0
ALFWF	-7.5102190	EKTX	1.2873049	EKWFX	0.86825383	LHITR	0.0
CHITPP	77.113986	EKTZ	1.9163016	EKWFZ	1.0128060	QHITR	0.0
EKTR	0.0	EPSWT	0.52867633	SIGWT	1.2355866	XITR	0.0
QWF	12.695079	KQHT	0.87177979	KQVT	0.75945056	YITR	0.0
MUXS	0.12723128	CTSIG	0.74704687E-1	LTOT	-6.4428239	ZITR	0.0
MUYS	0.20679470E-1	CHSIG	-0.82580307E-3	DTOT	27.043605	LITR	0.0
MUZS	-0.13517562E-2	CQMSIG	0.47330813E-6	TTR	740.10517	MITR	0.0
LAMBMR	-0.25904665E-1	NZ	0.99809482	HPMR	1180.8533	NITR	0.0
DWSHMR	0.24552909E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.3210477
XMR	976.73780	HBAR	-170.37095	VXBDOT	-0.20549174E-1	AYP	-0.23931713E-2
YMR	-337.66928	JBAR	337.66928	VYBDOT	-0.21661330E-3	AZP	-32.137753
ZMR	-15381.457	TBAR	15412.693	VZBDOT	0.68940788E-2	VXP	101.30966
LMR	-4588.9809	LBARH	-1401.2043	PDOT	-0.18674855E-3	VYP	16.478456
MMR	15044.185	MBARH	-4657.9277	QDOT	0.30886256E-3	VZP	4.2309563
NMR	21200.251	QBAR	21867.654	RDOT	0.73797158E-3	RSTR.	0.0
XWF	-296.68329	XT	-37.540457	XTR	0.0	PSIDMG	-150.0
YWF	-264.67329	YT	-93.285787	YTR	495.52308	BTR	2.0
ZWF	121.50838	ZT	-107.69803	ZTR	-253.15019	MADD	0.0
LWF	519.45500	LT	-205.06088	LTR	4271.9763	XADD	0.0
MWF	-4084.8329	MT	-3103.6187	MTR	-7843.4367	YADD	0.0
NWF	-2226.0747	NT	2603.4501	NTR	-21549.623	ZADD	0.0
XHT	-41.763245	XVT	4.2227878	ALFHTT	2.8509564	NADD	0.0
YHT	-1.7260083	YVT	-91.559779	ALFVTT	10.518570	LADD	0.0
ZHT	-106.42613	ZVT	-1.2719002	AABB1F	1.3755895		

WEIGHT	16050.0	FSCG	360.20000	V	82.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39015.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1133.0	WLHT	234.0	FSVT	695.0
FSHT	700.00000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.64491981	A1S	-1.2250349	IHT	7.6340217	XA	45.969251
LNGSTK	9.2193217	B1S	5.1955422	IS	-3.0	XB	17.422891
COLSTK	16.112186	THETA0	16.112186	TH75MR	6.0321861	XC	35.201163
PEDAL	25.669127	THETTR	32.427750	TH75TR	18.927750	XP	10.442649
XAIN	4.5969250	XBIN	1.7422891	XCIN	3.5201163	XPIN	0.56388840
XBACTP	20.415165	XBACTI	2.0415165	RSTR.	0.0	PSTR	0.0
VXB	135.04795	THETAB	2.6465966	AA0F	2.5988061	QSTR	0.0
VYB	15.243451	PHIB	0.0	AA1F	-2.5566602	RSTR	0.0
VZB	6.2427098	BETAWF	5.8433117	BB1F	0.36690170E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.3460274	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.16501324	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.14343038	MHITR	0.0
ALF-F	-3.4442853	EKTX	1.3562125	EKWFX	0.90952286	LHITR	0.0
CHITPP	80.732520	EKTZ	1.7849994	EKWFZ	1.0092674	QHITR	0.0
EKTW	0.0	EPSWT	0.50843311	SIGWT	0.96457065	XITR	0.0
Q-F	19.633692	KQHT	0.87177979	KQVT	0.80600295	YITR	0.0
MUXS	0.16964162	CTSIG	0.75207418E-1	LTOT	-0.96448010	ZITR	0.0
MUYS	0.19129613E-1	CHSIG	-0.18093661E-2	DTOT	25.085986	LITR	0.0
MUZS	-0.10665957E-2	CQMSIG	0.46949844E-6	TTR	780.49036	MITR	0.0
LAMBMR	-0.19949175E-1	NZ	0.99874922	HPMR	1214.5956	NITR	0.0
D-BMMR	0.18902579E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.4881876
XMR	1184.7687	WBAR	-373.28927	VXBDOT	0.25930495E-2	AYP	-0.18618955E-2
YMR	-309.93471	JBAR	309.93471	VYBDOT	-0.32812899E-2	AZP	-32.133431
ZMR	-15473.993	TBAR	15515.998	VZBDOT	0.40608510E-2	VXP	135.04795
LMR	-4742.1097	LBARM	-1690.0475	PDOT	-0.23284919E-3	VYP	15.243451
MMR	10058.039	MBARM	-8538.0849	QDOT	0.17759873E-3	VZP	6.2427098
NMR	21855.281	QBAR	22492.511	RDOT	-0.74425172E-3	RSTR.	0.0
X-F	-462.31027	XT	0.86912879	XTR	0.0	PSIDMG	-150.0
Y-F	-301.23971	YT	-123.69598	YTR	733.47557	BTR	0.0
Z-F	46.016652	ZT	75.700638	ZTR	-266.96379	MADD	0.0
L-F	513.45642	LT	-275.85670	LTR	4505.0317	XADD	0.0
M-F	-3929.1385	MT	2149.3192	MTR	-8271.4279	YADD	0.0
N-F	-2614.2771	NT	3457.2438	NTR	-22725.517	ZADD	0.0
XHT	1.6266110	XVT	-0.73748221	ALFHTT	-1.3541774	NADD	0.0
YHT	-1.2130570	YVT	-122.68292	ALFVTT	6.7675294	LADD	0.0
ZHT	75.583990	ZVT	0.11664869	AABB1F	2.5569314		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 39.

WEIGHT	16450.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	5130.0	WLCG	245.09999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1133.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.56608974	A1S	-1.1933575	IHT	-0.69487496	XA	46.461939
LNGSTK	11.602833	B1S	7.5765529	IS	-3.0	XB	9.0005882
COLSTK	16.569978	THETAG	16.569978	TH75MR	6.4899789	XC	38.062369
PEDAL	26.153759	THETTR	33.461733	TH75TR	19.961733	XP	9.0991370
XAIN	4.6461939	XBIN	0.90005882	XCIN	3.8062369	XPIN	0.49134062
XBACTP	10.772750	XBACTI	1.0772750	RSTR.	0.0	PSTR	0.0
VXB	168.71460	THETAB	3.2627225	AA0F	2.6115622	QSTR	0.0
VYB	15.392487	PHIB	0.0	AA1F	-4.3927164	RSTR	0.0
VZB	9.6184860	RETAWF	4.0868741	BB1F	0.32969094E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.8138951	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.20262405	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.28571359	MHITR	0.0
ALFWF	-0.87610721	EKTX	1.3594862	EKWFX	0.92228996	LHITR	0.0
CHITPP	81.714614	FKTZ	1.6972815	EKWFZ	1.0082853	QHITR	0.0
EKTR	0.0	EPSWT	0.49884874	SIGWT	0.86008986	XITR	0.0
QWF	28.575914	KQHT	0.87177979	KQVT	0.82516968	YITR	0.0
MUXS	0.21205176	CTSIG	0.76163873E-1	LTOT	1.9034210	ZITR	0.0
MUYS	0.19316644E-1	CHSIG	-0.36147522E-2	DTOT	24.557374	LITR	0.0
MUZS	0.97255781E-3	CQHSIG	0.47180295E-6	TTR	898.22405	MITR	0.0
LAMBMR	-0.14434776E-1	NZ	0.99832785	HPMR	1373.5913	NITR	0.0
DWSHMR	0.15407334E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	1.8444898
XMR	1567.0244	HBAR	-745.75743	VXBDOT	0.10801947E-1	AYP	0.20342417E-1
YMR	-308.89643	JBAR	308.89643	VYBDOT	0.87911120E-2	AZP	-32.121002
ZMR	-15651.540	TBAR	15713.324	VZBDOT	-0.53269003E-3	VXP	168.71460
LMR	-5362.3461	LBARH	-2163.1667	PDOT	0.60930623E-2	VYP	15.392487
MMR	1961.6491	MBARH	-14614.737	QDOT	-0.13453457E-2	VZP	9.6184860
NMR	24772.351	QBAR	25436.877	RDOT	-0.13285207E-3	RSTR.	0.0
XWF	-673.72850	XT	1.9772600	XTR	2.0	PSIDMG	-150.0
YWF	-365.86182	YT	-165.08613	YTR	844.11727	BTR	2.0
ZWF	-44.067869	ZT	390.99174	ZTR	-307.23415	MADD	0.0
LWF	574.96908	LT	-365.65588	LTR	5154.5968	XADD	0.0
MWF	-3596.5538	MT	11100.477	MTR	-9519.1381	YADD	0.0
NWF	-3244.7082	NT	4606.8950	NTR	-26153.566	ZADD	0.0
XHT	6.3009285	XVT	-4.3236685	ALFHTT	-5.1247551	NADD	0.0
YHT	-2.2041971	YVT	-142.88193	ALFVTT	5.2703628	LADD	0.0
ZHT	390.65677	ZVT	0.33497190	AABB1F	4.3928400		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 40.

WEIGHT	16450.0	FSCG	360.20000	V	120.0	PSITR2	0.0
IX	5130.0	WLCG	245.09999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1091.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.50259338	A1S	-1.3016991	IHT	-2.2389183	XA	46.358791
LNGSTK	13.365371	B1S	9.0120624	IS	-3.0	XB	2.7725393
COLSTK	17.461608	THETAB	17.461608	TH75MR	7.3816088	XC	43.635056
PEDAL	28.251935	THETTR	36.629866	TH75TR	23.129866	XP	3.2825022
XAIN	4.6358790	XBIN	0.27725393	XCIN	4.3635056	XPIN	0.17725051
XBACTP	2.6939957	XBACTI	0.26939956	RSTR.	0.0	PSTR	0.0
VXB	202.64568	THETAB	2.2494494	AA0F	2.6201242	QSTR	0.0
VYB	16.702781	PHIB	0.0	AA1F	-5.0593568	RSTR	0.0
VZB	7.9600765	BETAWF	4.5024199	BB1F	-0.54581383E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.6382554	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.22629359	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.37982537	MHITR	0.0
ALFWF	-0.65755128	FKTX	1.4167120	EKWFX	0.91669353	LHITR	0.0
CHITPP	81.284119	EKTZ	1.6866835	EKWFZ	1.0087158	QHITR	0.0
EKTW	0.0	EPSWT	0.49502420	SIGWT	0.79242593	XITR	0.0
QWF	39.610794	KQHT	0.87177979	KQVT	0.82703121	YITR	0.0
MUXS	0.25446263	CTSIG	0.76690534E-1	LTOT	2.0119065	ZITR	0.0
MUYS	0.20960984E-1	CHSIG	-0.35879733E-2	DTOT	24.480483	LITR	0.0
MUZS	-0.33341060E-2	CQHSIG	0.47334975E-6	TTR	1099.7205	MITR	0.0
LAMBMR	-0.16270922E-1	NZ	0.99929199	HPMR	1665.8504	NITR	0.0
DWSHMR	0.12936816E-1	VC	0.35762786E-5	KTRBLK	1.0	AXP	1.2792694
XMR	1567.1941	HBAR	-740.23269	VXBDOT	0.15560934E-1	AYP	0.37064974E-1
YMR	-336.83437	JBAR	336.83437	VYBDOT	0.21016753E-1	AZP	-32.148737
ZMR	-15760.327	TBAR	15821.979	VZBDOT	-0.17022975E-2	VXP	202.64568
LMR	-6540.0064	LBARH	-2889.4049	PDOT	0.11288855E-1	VYP	16.702781
MMR	-27.869384	MBARH	-16784.418	QDOT	-0.89411943E-3	VZP	7.9600765
NMR	30092.179	QBAR	30849.082	RDOT	0.19095656E-2	RSTR.	0.0
XWF	-936.71244	XT	-9.1132628	XTR	0.0	PSIDMG	-150.0
YWF	-467.25286	YT	-219.17378	YTR	1033.4761	BTR	2.0
ZWF	-68.928989	ZT	578.48395	ZTR	-376.15526	MADD	0.0
LWF	731.43766	LT	-485.56995	LTR	6347.6452	XADD	0.0
MWF	-4769.7281	MT	16416.542	MTR	-11654.543	YADD	0.0
NWF	-4142.5914	NT	6116.2497	NTR	-32020.534	ZADD	0.0
XHT	-1.1846532	XVT	-7.9286096	ALFHTT	-5.5807371	NADD	0.0
YHT	-2.8915421	YVT	-216.28223	ALFVTT	4.7385911	LADD	0.0
ZHT	578.02096	ZVT	0.46299716	AABB1F	5.0596512		

NO TRIM 9-DEC-77 RUN 41.

WEIGHT	16450.0	FSCG	360.20000	V	140.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	5000.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.60557824	A1S	-1.4686410	IHT	-2.9279675	XA	46.215136
LNGSTK	14.149999	B1S	9.8715348	IS	-3.0	XB	0.0
COLSTK	18.859250	THETA0	18.859250	TH75MR	8.7792502	XC	52.370315
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	4.6215136	XBIN	0.0	XCIN	5.2370314	XPIN	0.0
XBACTP	-2.2892616	XBACTI	-0.22892616	RSTR.	0.0	PSTR	0.0
VXB	236.58176	THETAB	0.28934432	AA0F	2.7050066	QSTR	0.0
VYB	15.219806	PHIB	0.0	AA1F	-4.8848219	RSTR	0.0
VZB	1.1946927	BETAWF	3.5528006	BB1F	-0.95262330E-2	TITR	0.0
P	0.9	GAMC	0.0	AA0L	-5.8052758	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.26072603	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.43714836	MHITR	0.0
ALFWF	-1.8636789	EKTX	1.4882627	EKWFX	0.90272122	LHITR	0.0
CHIIPP	80.209326	EKTZ	1.7215207	EKWFZ	1.0097906	QHITR	0.0
EKTR	0.0	EPSWT	0.48552800	SIGWT	0.62529291	XITR	0.0
QWF	52.689486	KQHT	0.87177979	KQVT	0.83161144	YITR	0.0
MUXS	0.29654438	CTSIG	0.78912872E-1	LTOT	0.18470549	ZITR	0.0
MUYS	0.19095845E-1	CHSIG	-0.23192228E-2	DTOT	24.290560	LITR	0.0
MUZS	-0.14040696E-1	CQHSIG	0.48868454E-6	TTR	1204.8711	MITR	0.0
LAMBMR	-0.25449039E-1	NZ	1.0000838	HPMR	2093.1228	NITR	0.0
DWSHMR	0.11408342E-1	VC	0.59406967E-6'	KTRBLK	1.0	AXP	-0.33278907
XMR	1329.8127	HBAR	-478.47751	VXBDOT	-0.18170379E-2	AYP	-0.29573595
YMR	-381.38571	JBAR	381.38571	VYBDOT	0.24626279E-1	AZP	-31.583815
ZMR	-16231.851	TBAR	16220.468	VZBDOT	-0.51759589E-2	VXP	236.58176
LMR	-7453.7960	LBARH	-3129.2777	PDOT	0.15742325E-1	VYP	15.216543
MMR	2899.0578	MBARH	-16080.734	QDOT	0.23610282	VZP	1.1947452
NMR	37721.500	QBAR	38576.350	RDOT	0.14967960	RSTR.	0.0
XWF	-1251.4863	XT	-0.24323272	XTR	0.0	PSIDMG	-150.0
YWF	-490.33837	YT	-248.59914	YTR	1132.2927	BTR	2.0
ZWF	31.086362	ZT	973.57646	ZTR	-412.12164	MADD	0.0
LWF	805.01173	LT	-549.58561	LTR	6954.5802	XADD	0.0
MWF	-8382.3895	MT	27652.666	MTR	-12768.902	YADD	0.0
NWF	-4356.9589	NT	6937.5548	NTR	-35082.202	ZADD	0.0
XHT	15.929387	XVT	-16.172620	ALFHTT	-7.1179811	NADD	0.0
YHT	-3.6412724	YVT	-244.95787	ALFVTT	3.6724348	LADD	0.0
ZHT	972.36537	ZVT	1.2110910	AABB1F	4.8848312		

WEIGHT	16450.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	THSTMR	-18.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	THSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	OSTR.	0.0
LATSTK	-0.88230961	A1S	-1.8326957	IHT	-3.7908859	XA	44.485565
LNGSTK	11.611358	B1S	12.149227	IS	-3.0	XB	8.9784649
COLSTK	19.707049	THETAK	19.707049	TH75MR	9.6270495	XC	57.669060
PEDAL	13.060248	THETTR	24.132707	TH75TR	10.632707	XP	45.397403
XAIN	4.4485564	XBIN	0.89784649	XCIN	5.7669060	XPIN	2.4513960
XBACTP	6.1298514	XBACTI	0.61298514	RSTR.	0.0	PSTR	0.0
VXB	253.44898	THETAB	0.75574498	AA0F	2.6850514	QSTR	0.0
VYB	20.427700	PHIB	0.0	AA1F	-6.6674919	RSTR	0.0
VZB	3.3433339	BETAWF	4.4750447	BB1F	-0.36307699	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.7631016	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.28942532	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.59994865	MHITR	0.0
ALFWF	-1.1308755	EKTX	1.5297625	EKWFX	0.89109549	LHITR	0.0
CHITPP	79.190501	EKTZ	1.7102374	EKWFZ	1.0100094	OHITR	0.0
EKTW	0.0	EPSWT	0.49475044	SIGWT	0.78760789	XITR	0.0
QWF	59.972029	KGHT	0.87177979	KOVT	0.82716361	YITR	0.0
MUXB	0.31782218	CTSIG	0.78350960E-1	LTOT	1.4329671	ZITR	0.0
MUYS	0.25635532E-1	CHSIG	-0.39485686E-2	DTOT	24.475008	LITR	0.0
MUZS	-0.12456032E-1	CQMSIG	0.48507945E-6	TTR	1618.2133	MITR	0.0
LAMBMR	-0.23021352E-1	NZ	0.99900828	HPMR	2430.2480	NITR	0.0
DWSHMR	0.10565319E-1	VC	0.17881393E-5	KTRBLK	1.0	AXP	0.45026824
XMR	1659.4083	HBAR	-814.62689	VXBDOT	0.39784544E-1	AYP	-0.82029358E-1
YMR	-503.99743	JBAR	503.99743	VYBDOT	-0.47066247E-1	AZP	-32.131328
ZMR	-16098.499	TBAR	16164.541	VZBDOT	0.25432997E-1	VXP	253.44898
LMR	-9831.9533	LBARH	-4430.2006	PDOT	-0.24548428E-1	VYP	20.427700
MMR	-5293.8107	MBARH	-22055.029	QDOT	0.84535446E-2	VZP	3.3433339
NMR	43068.137	QBAR	45804.594	RDOT	-0.41262738E-2	RSTR.	0.0
XWF	-1418.6413	XT	-15.185101	XTR	0.0	PSIDMG	-150.0
YWF	-703.13565	YT	-336.47940	YTR	1520.7361	RTR	4.0
ZWF	-57.866646	ZT	1087.3787	ZTR	-553.50377	MADD	0.0
LWF	1118.3496	LT	-743.22357	LTR	9340.4132	XADD	0.0
MWF	-8074.7863	MT	30854.566	MTR	-17149.391	YADD	0.0
NWF	-6230.2807	NT	9390.0819	NTR	-47117.475	ZADD	0.0
XHT	-2.0243854	XVT	-13.160716	ALFHTT	-7.0293717	NADD	0.0
YHT	-5.1258701	YVT	-331.35352	ALFVTT	4.6209654	LADD	0.0
ZHT	1086.6340	ZVT	0.74471134	AABB1F	6.6773701		

UTTAS(S76)   1-21-77   9-DEC-77   RUN 43.

WEIGHT	16450.0	FSCG	360.20000	V	40.0	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1175.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.5402550	A1S	-2.1864699	IHT	27.196170	XA	40.373406
LNGSTK	8.5755972	B1S	3.6865897	IS	-3.0	XB	19.697535
COLSTK	16.753931	THETA0	16.753931	TH75MR	6.6739314	XC	39.212072
PEDAL	29.436000	THETTR	36.964717	TH75TR	23.464717	XP	0.0
XAIN	4.0373406	XBIN	1.9697535	XCIN	3.9212072	XPIN	0.0
XBACTP	26.266005	XBACTI	2.6266005	RSTR.	0.0	PSTR	0.0
VXB	67.400062	THETAB	4.3987097	AA0F	2.7598776	QSTR	0.0
VYB	0.0	PHIB	-1.5578475	AA1F	-2.3894614	RSTR	0.0
VZB	5.1754034	BETAWF	0.0	BB1F	-0.16806978	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-3.7363957	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.16475587	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.10009442	MHITR	0.0
ALF.F	-15.342848	EKTX	1.0547487	EKWFX	0.73582347	LHITR	0.0
CHITPP	65.832575	EKTZ	2.0403256	EKWFZ	1.0283348	QHITR	0.0
EKTW	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	7.3654108	KQWT	0.87922024	KQVT	0.84852813	YITR	0.0
MUXS	0.84800431E-1	CTSIG	0.76034120E-1	LTOT	-25.685696	ZITR	0.0
MUYS	0.0	CHSIG	-0.23447861E-2	DTOT	27.767992	LITR	0.0
MUZS	0.20588149E-2	COMSIG	0.49497156E-6	TTR	849.37751	MITR	0.0
LAMBMR	-0.33887023E-1	NZ	0.99675502	HPMR	1368.5384	NITR	0.0
DWSHMR	0.35945837E-1	VC	0.12842774	KTRBLK	1.0	AXP	2.4858684
XMR	1303.9969	HBAR	-483.75146	VXBDOT	0.23287764E-1	AYP	0.87764248
YMR	-364.85799	JBAR	364.85799	VYBDOT	0.80008830E-2	AZP	-32.069297
ZMR	-15638.522	TBAR	15686.555	VZBDOT	-0.40616045E-2	VXP	67.400062
LMR	-4890.2728	LBARH	-1355.8435	PDOT	0.60305067E-3	VYP	0.0
MMR	10284.747	MBARH	-7863.2022	QDOT	0.19318473E-4	VZP	5.1754034
NMR	24627.958	QBAR	25343.304	RDOT	0.14403002E-2	RSTR.	0.0
XWF	-147.16581	XT	51.720922	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-5.5830531	YTR	798.21312	BTP	2.0
ZWF	236.56495	ZT	105.22862	ZTR	-290.52637	MADD	0.0
LWF	0.0	LT	-12.608395	LTR	4902.6520	XADD	0.0
MWF	-4321.2999	MT	3038.7975	MTR	-9001.4754	YADD	0.0
NWF	0.0	NT	155.76718	NTR	-24731.302	ZADD	0.0
XHT	53.156198	XVT	-1.4352753	ALFHTT	-3.8239126	NADD	0.0
YHT	0.0	YVT	-5.5830531	ALFVTT	0.0	LADD	0.0
ZHT	104.36553	ZVT	0.86300495	AABB1F	2.3953649		

UTTAS(S76) 1-21-77 9-DEC-77 RUN 44.

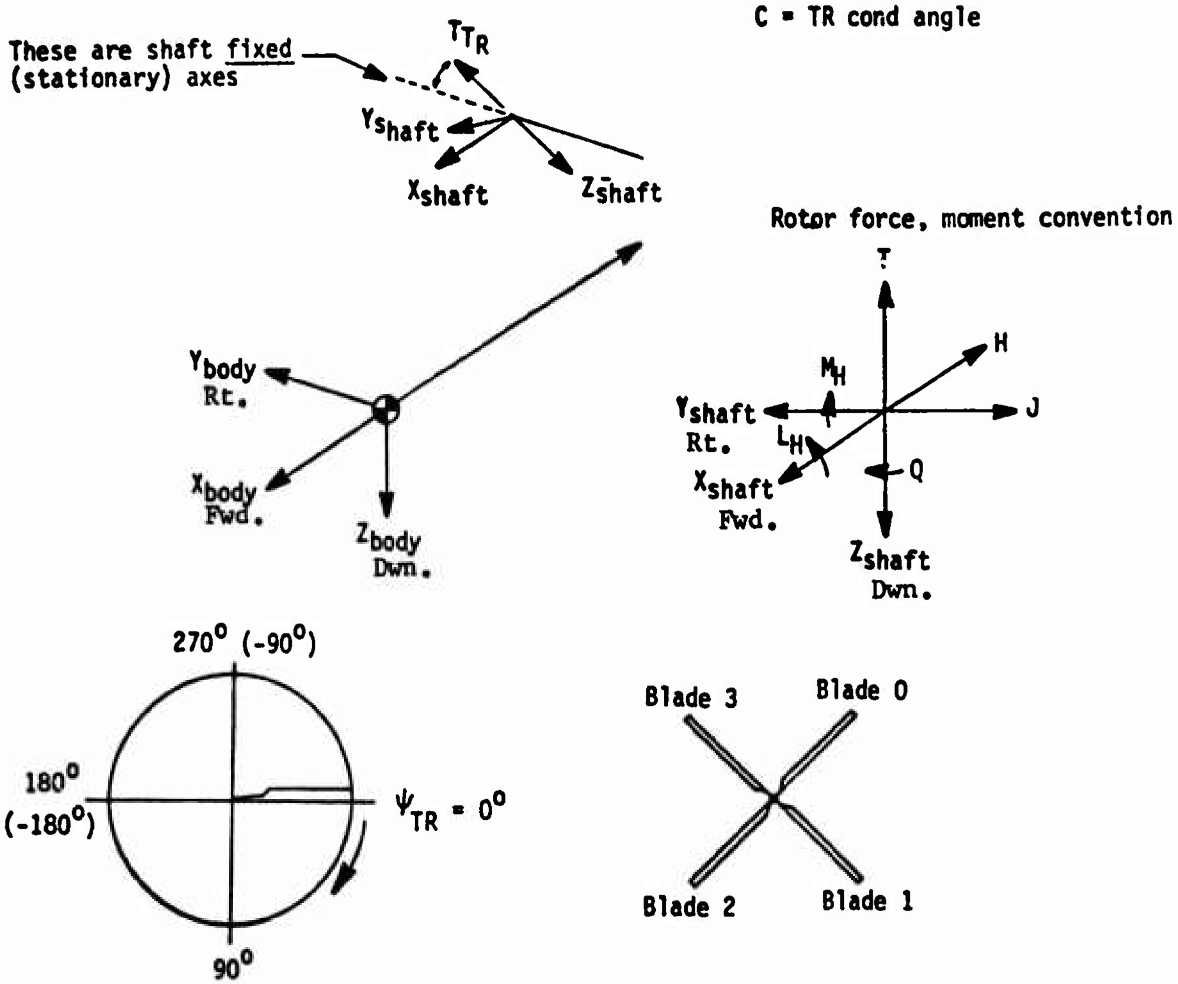
WEIGHT	16450.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0
IX	5130.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	39815.0	RHO	0.17500000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-10.0	HLVT	273.0
KFR	15.0	PASCNT	2309.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	0.26098394	A1S	-0.53536536	IHT	29.754190	XA	51.631150
LNGSTK	7.1574962	B1S	2.6911971	IS	-3.0	XB	24.708493
COLSTK	18.211546	THETAG	18.211546	TH75MR	8.1315466	XC	48.322167
PEDAL	29.436000	THETTR	37.5	TH75TR	24.0	XP	0.0
XAIN	5.1631150	XBIN	2.4708493	XCIN	4.8322167	XPIN	0.0
XBACTP	31.855409	XBACTI	3.1855609	RSTR.	0.0	PSTR	0.0
VXB	0.16810899E-1	THETAB	5.9134644	AA0F	2.8255771	QSTR	0.0
VYB	0.0	PHIB	-1.5760910	AA1F	-2.8887439	RSTR	0.0
VZB	0.17412781E-2	BETAWF	0.0	AB1F	-0.58104067	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.6058197	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.41316539E-1	JITR	0.0
R	0.0	PSIDOT	0.0	AB1L	0.14074582	MHITR	0.0
ALFWF	-10.829242	EKTX	-0.20743707	EKWFX	0.79995393E-5	LHITR	0.0
CHITPP	-2.8629737	EKTZ	0.14490038	EKWFZ	0.11099360E-3	QHITR	0.0
EKTW	0.0	EPSWT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	0.26740755E-6	KOHT	0.87177979	KOVT	0.84852813	YITR	0.0
MUXS	0.21180475E-4	CTSIG	0.74715687E-1	LTOT	-14.990181	ZITR	0.0
MUYS	0.0	CHSIG	-0.39024013E-2	DTOT	25.461353	LITR	0.0
MUZS	0.10779539E-5	CQMSIG	0.51046673E-6	TTR	586.01745	MITR	0.0
LAMBMR	-0.56017661E-1	NZ	0.99430238	HPMR	1672.9676	NITR	0.0
DWSHMR	0.56018739E-1	VC	0.43612962E-4	KTRBLK	0.79599999	AXP	3.1646783
XMR	1610.6470	HBAR	-805.10214	VXBDOT	0.02327105E-3	AYP	-0.23765633E-1
YMR	-123.36474	JBAR	123.36474	VYBDOT	-0.10271016E-2	AZP	-31.991149
ZMR	-15350.093	TBAR	15014.549	VZBDOT	0.25541996E-3	VXP	0.16810899E-1
LMR	-4223.5659	LBARH	-1057.6294	PDOT	-0.62908257E-3	VYP	0.0
MMR	6159.7978	MBARH	-9650.2773	QDOT	-0.81397246E-4	VZP	0.17412781E-2
NMR	30633.330	QBAR	30980.883	RDOT	0.36316204	RSTR.	0.0
XWF	-0.59362364E-5	XT	1.0021216	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-0.34943694E-6	YTR	550.71722	BTR	2.0
ZWF	0.52175560E-5	ZT	1.6375275	ZTR	-200.44506	MADD	0.0
LWF	0.0	LT	-0.78914510E-6	LTR	3302.5238	XADD	0.0
MWF	-0.12013428E-3	MT	47.417676	MTR	-6210.4562	YADD	0.0
NWF	0.0	NT	0.97492907E-5	NTR	-17063.055	ZADD	0.0
XMT	1.0021217	XVT	-0.85892081E-7	ALFHTT	-5.2211661	NADD	0.0
YMT	0.0	YVT	-0.34943694E-6	ALFVTT	0.0	LADD	0.0
ZMT	1.6375275	ZVT	0.62087346E-7	AABB1F	2.9465996		

APPENDIX C

AIRCRAFT "HANDS OFF" RESPONSE

This Appendix contains the time histories, (Figures C-2 through C-13), of the aircraft for a period of six seconds following blade loss. The axis system, the parametric definition, and the sign convention used are shown in Figure C-1. Shown below is a definition of the symbols used.

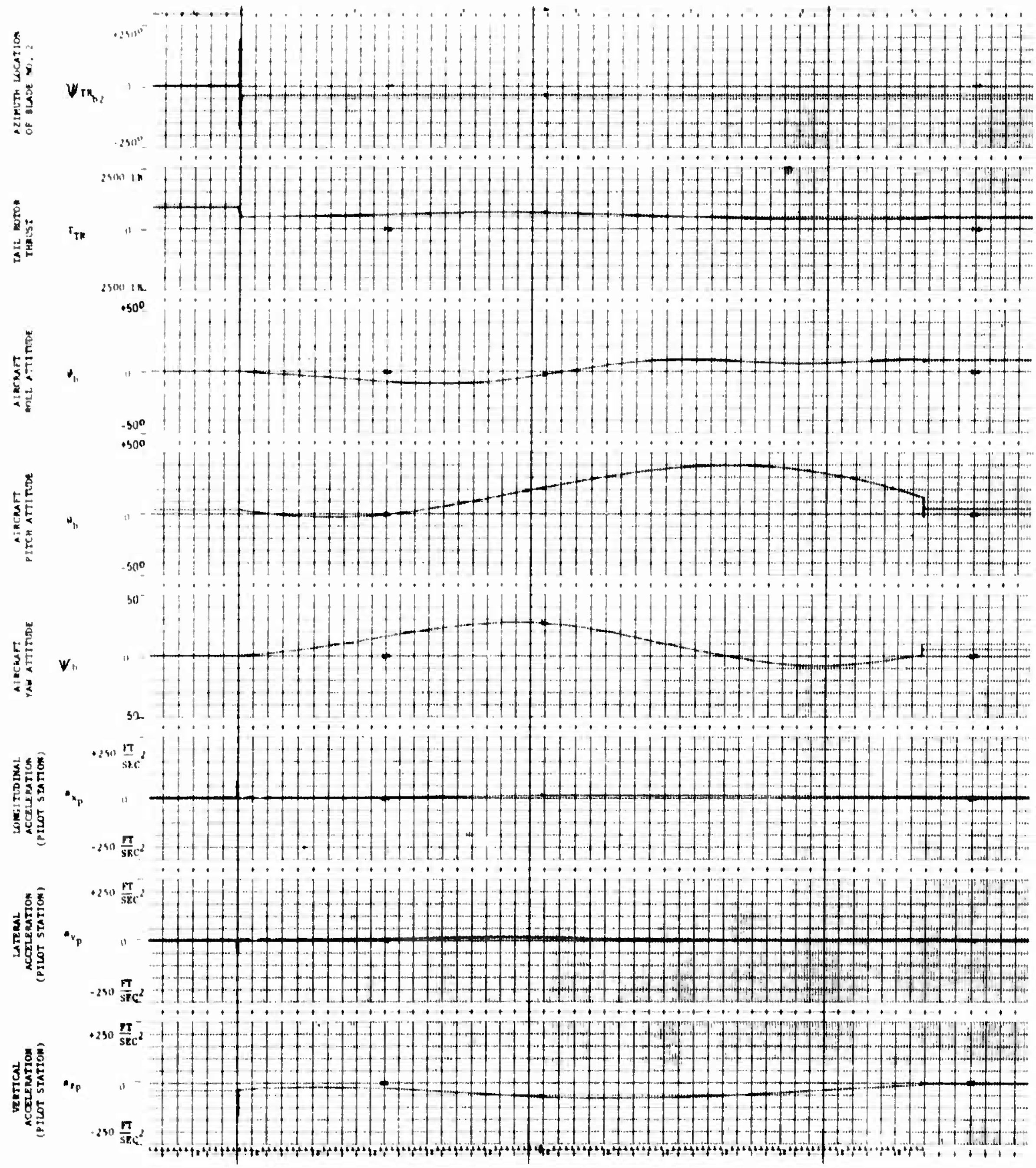
Symbol	Definition
$\psi \, TR_b 2$	Tail Rotor (TR) Azimuth Position of Blade #2
T_{TR}	Tail Rotor Thrust
$\phi \, b$	Aircraft Roll Attitude
$\theta \, b$	Aircraft Pitch Attitude
$\psi \, b$	Aircraft Yaw Attitude
a_{x_p}	Longitudinal Acceleration at Pilot's Location
a_{y_p}	Lateral Acceleration at Pilot's Location
a_{z_p}	Vertical Acceleration at Pilot's Location



Notes:

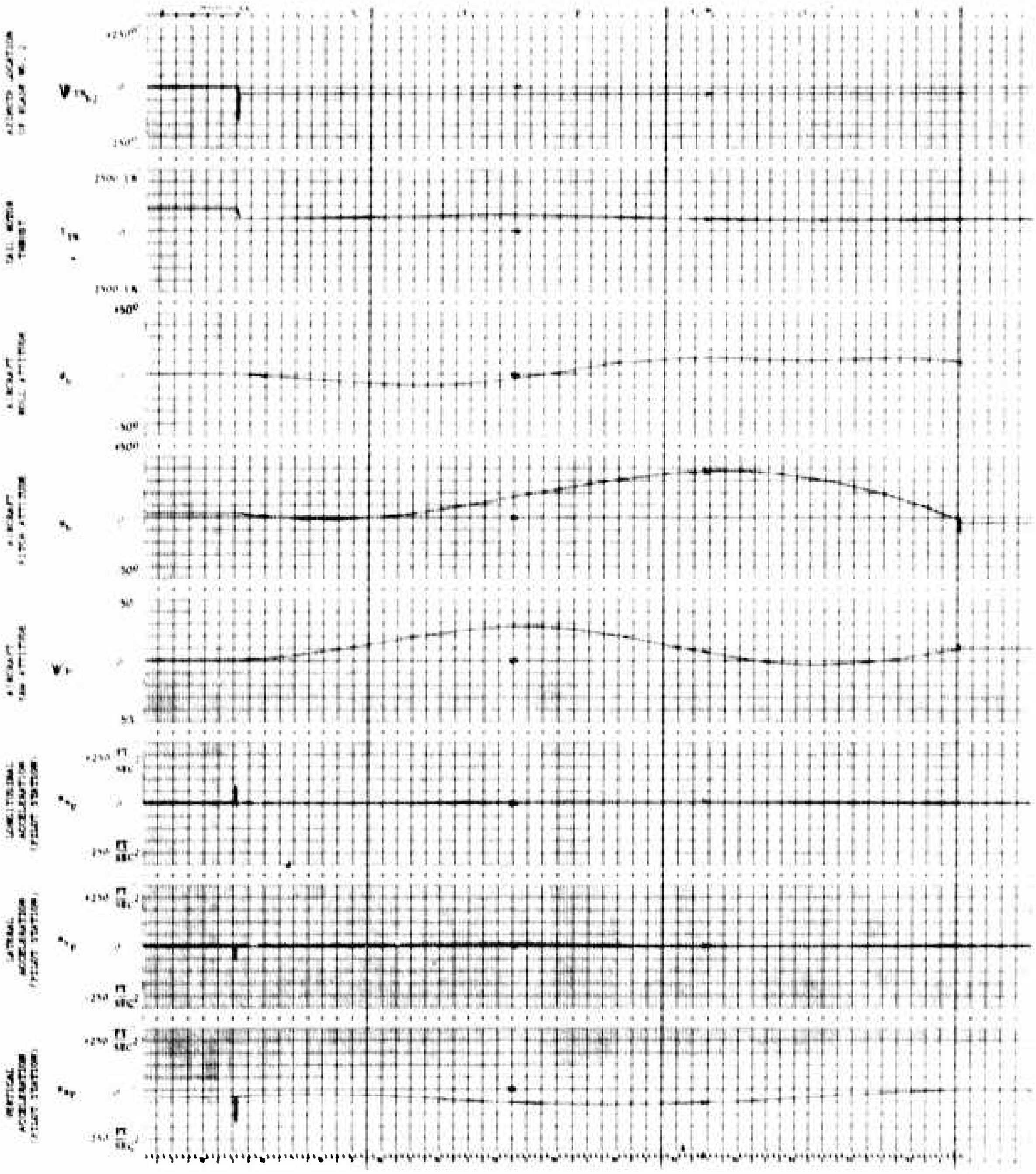
1. Tail Rotor Severance Simulation assumes Blade 0 is entirely lost due to ballistic damage (worst case); then, Blade 2 is completely severed when it reaches the jettison envelope.
2. Computer program required defining $_{TR} = \pm 180^{\circ}$ rather than 0° to 360°.
3. Jettison window used in the simulation study was $-45^{\circ} \leq \psi_{TR} \leq 25^{\circ}$ to examine performance characteristics for a blade loss range that exceeds the required 42° window discussed in part 1 of this report.

Figure C-1. Axis System, Parametric Definition, Sign Convention



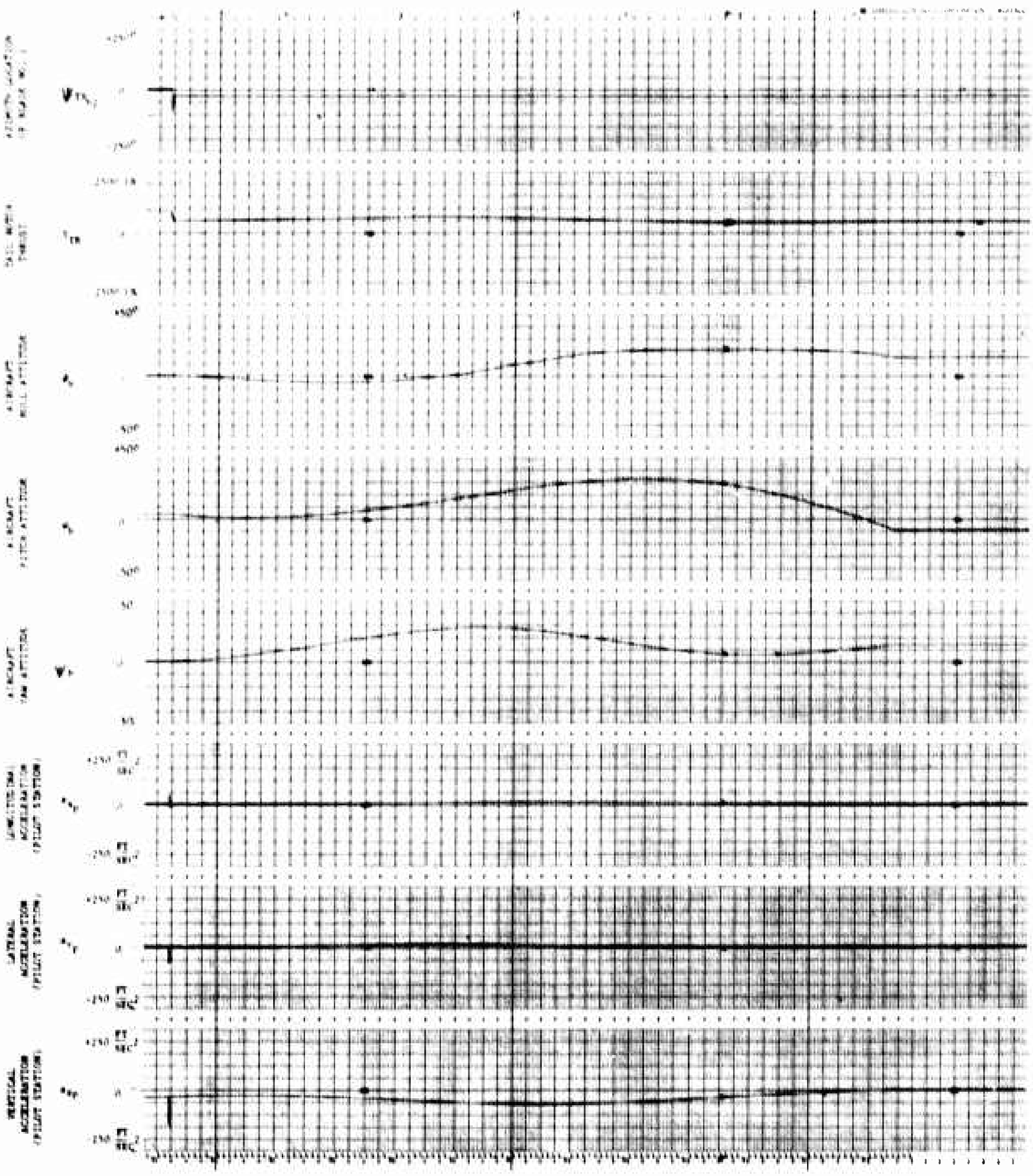
G.W.: 16,450 FSCG: 360.2 ψ Damage: 0^{0} SAS: OFF

Figure C-2. Aircraft "Hands Off" Response (0^{0})



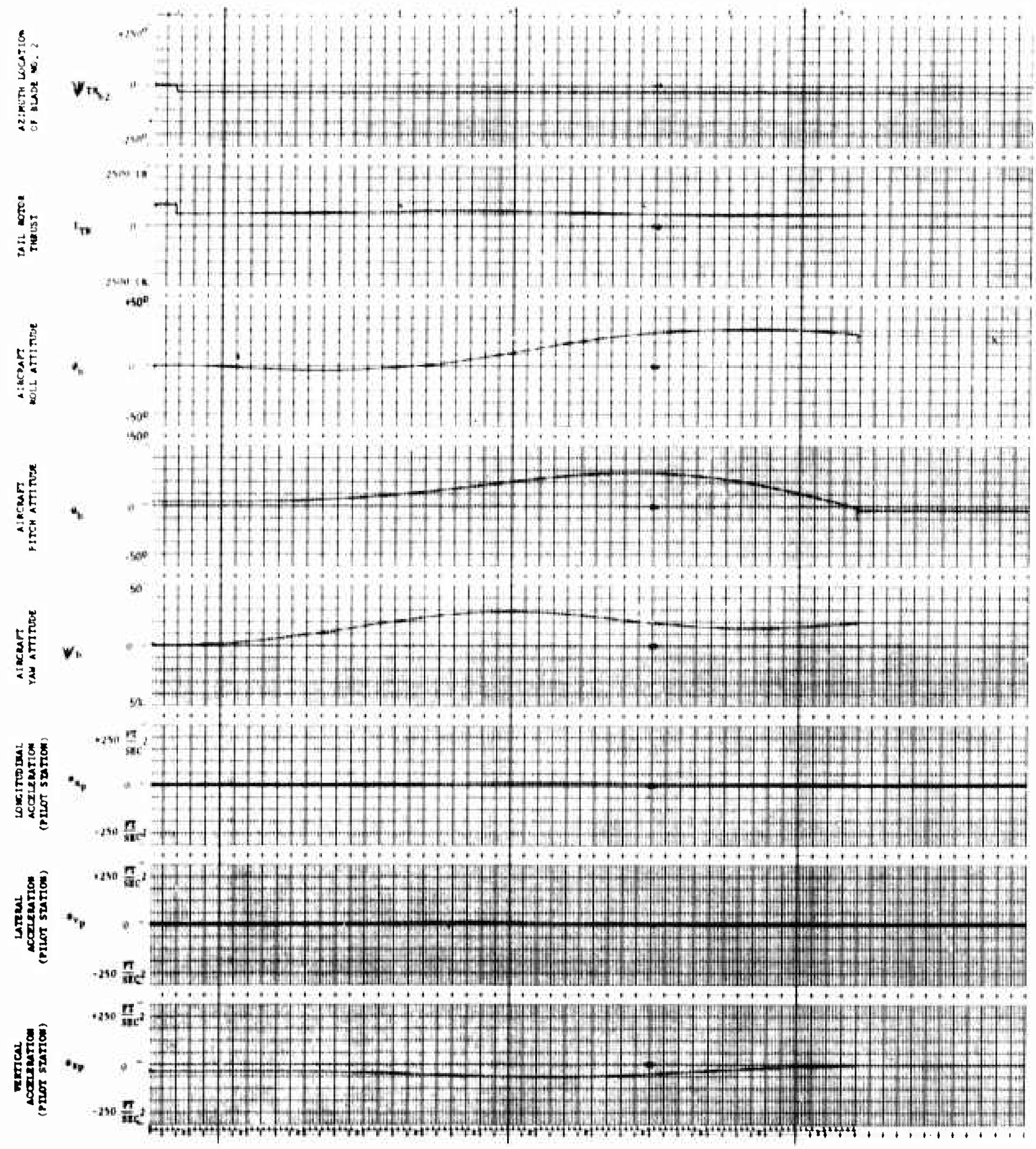
G.W.: 16,450 FSCG: 360.2 ψ' Damage: 50° SAS: OFF

Figure C-3. Aircraft "Hands Off" Response (50°)



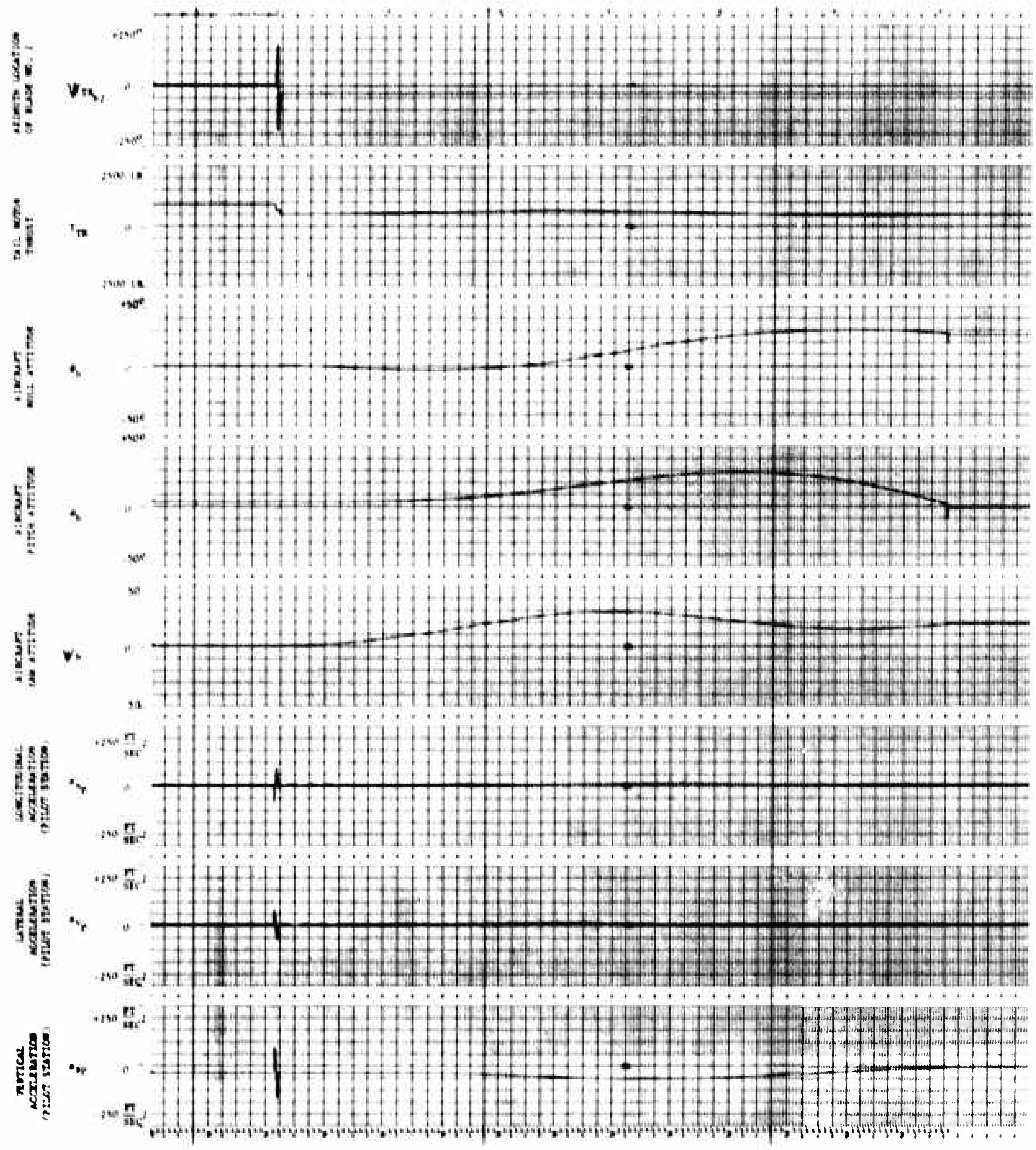
G.W.: 16,450 FSCG: 360.2 ψ Damage: 90^{o} SAS: OFF

Figure C-4. Aircraft "Hands Off" Response (90^{o})



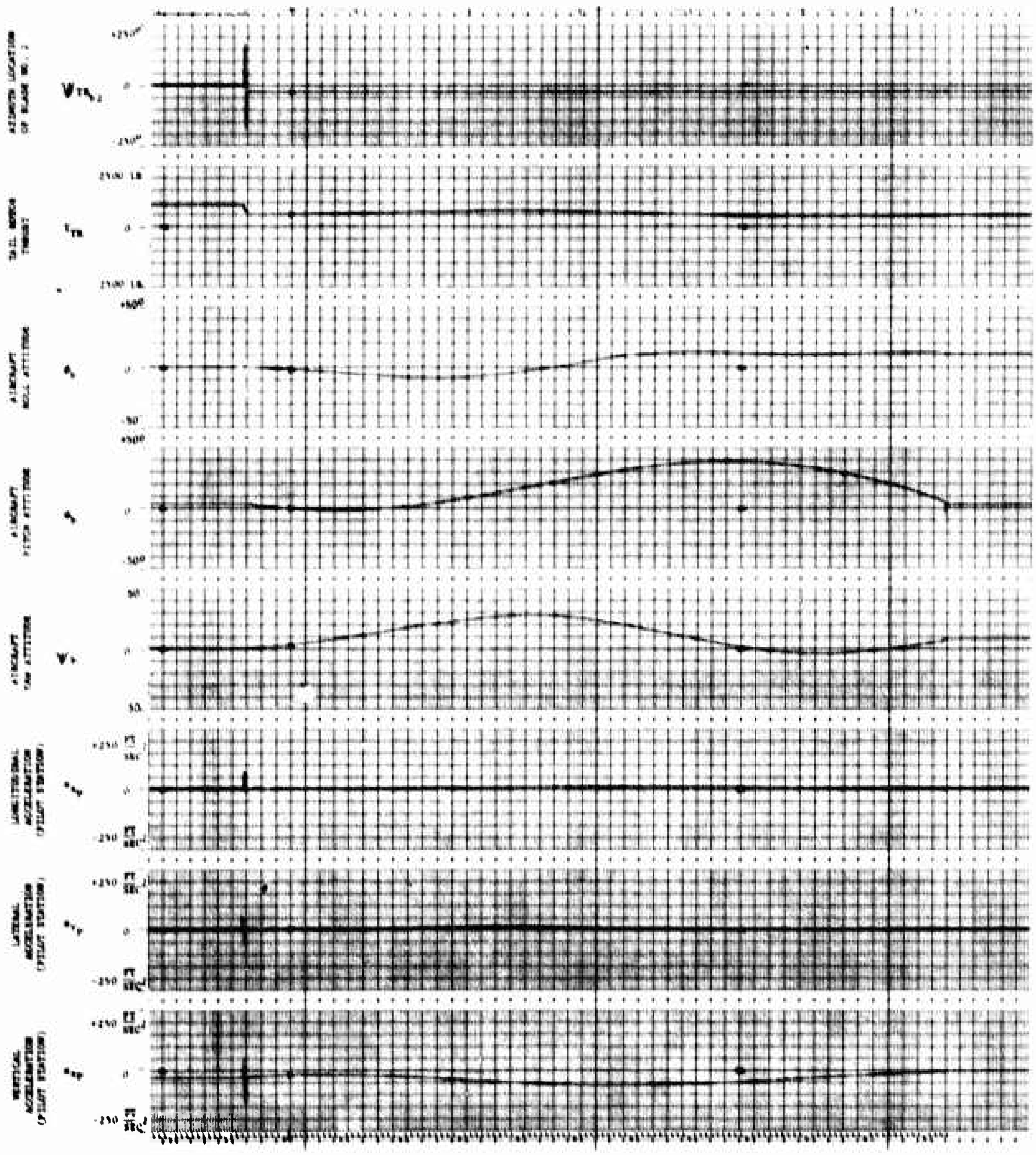
G.W.: 16,450 FSCG: 360.2 ψ Damage: 150^{0} SAS: OFF

Figure C-5. Aircraft "Hands Off" Response (150^{0})



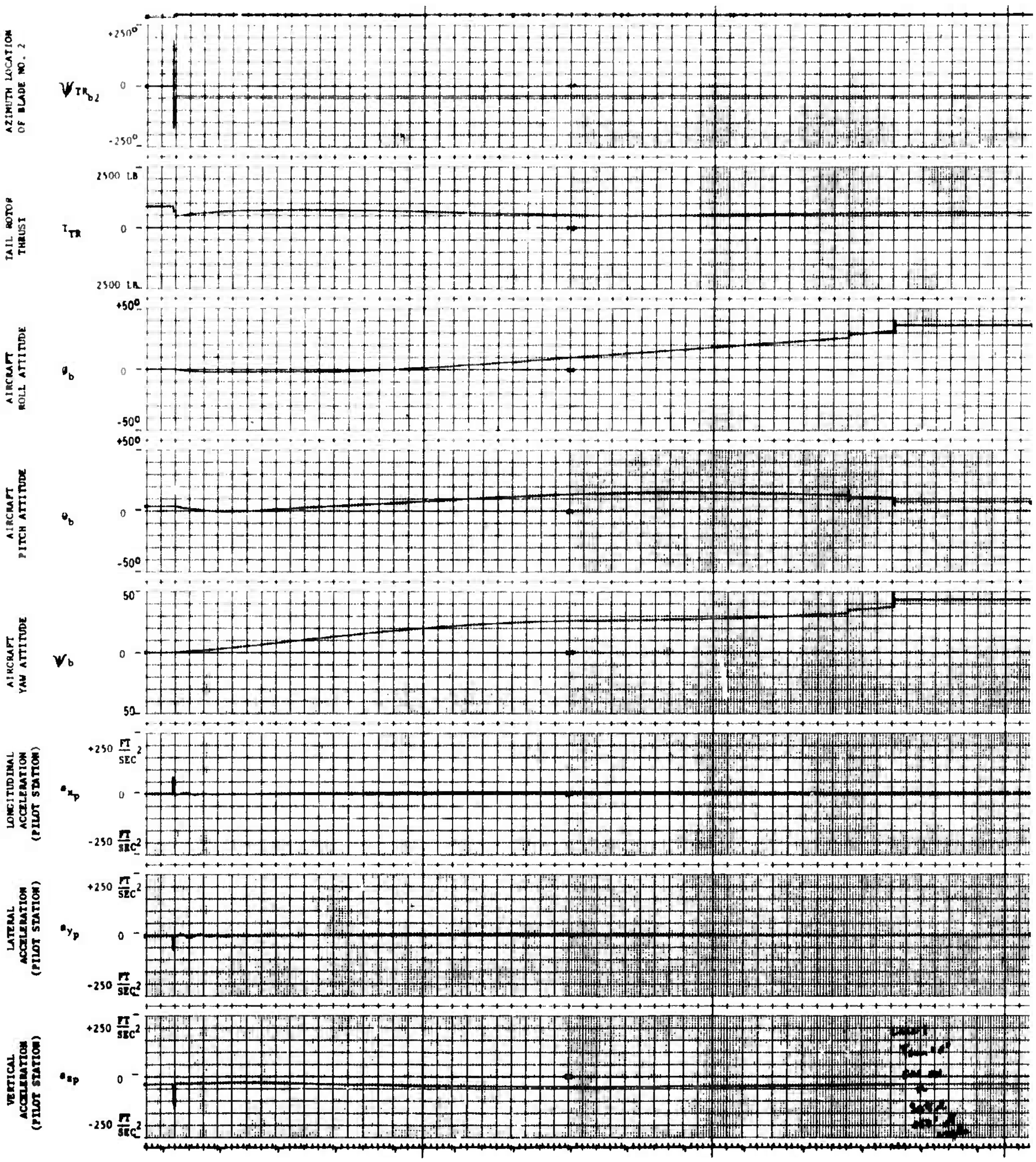
G.W.: 16,450 FSCG: 360.2 ψ Damage: -135^{o} SAS: OFF

Figure C-6. Aircraft "Hands Off" Response (-135^{O})



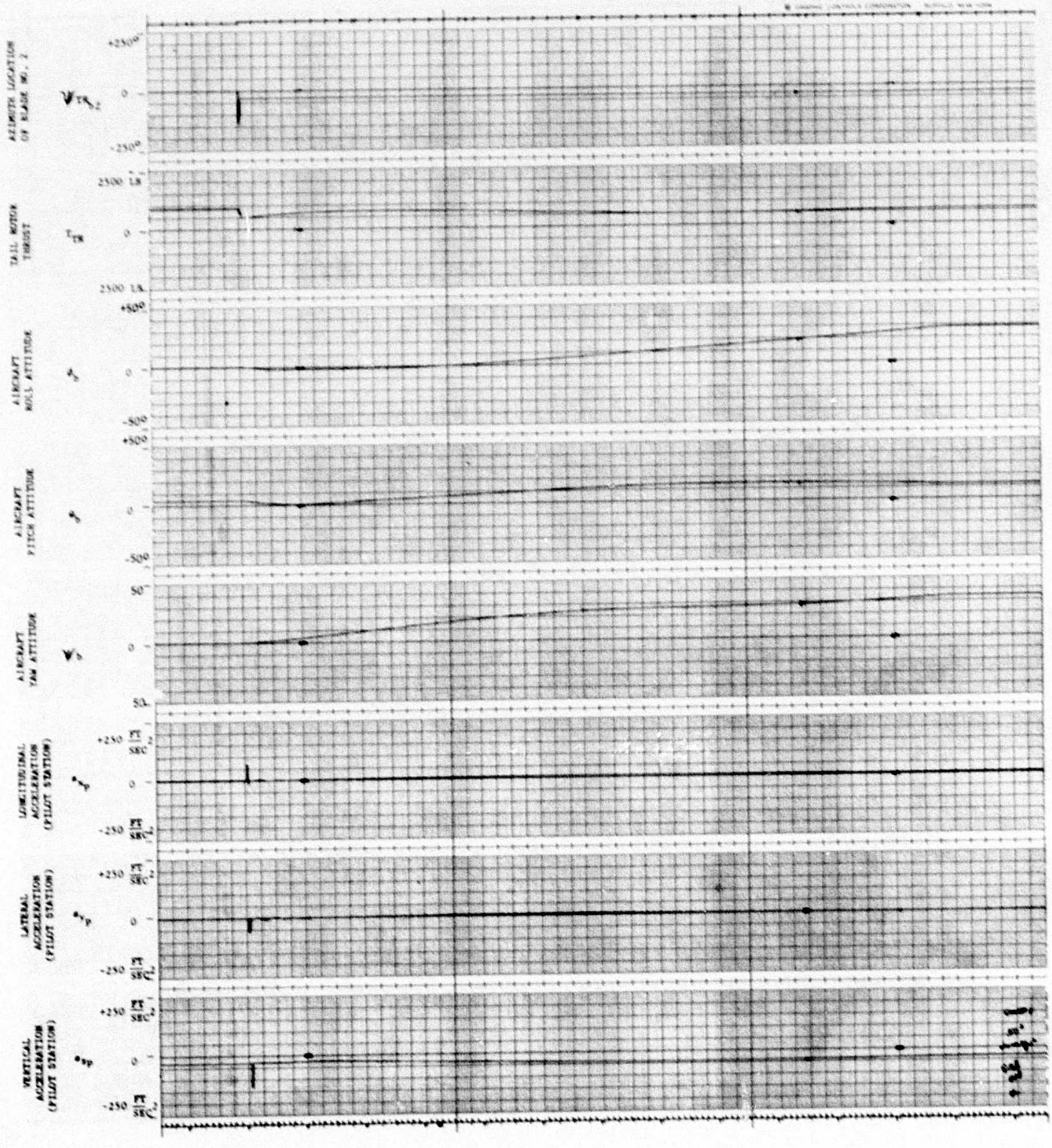
G.W.: 16,450 FSCG: 360.2 ψ Damage: -50^{o} SAS: OFF

Figure C-7. Aircraft "Hands Off" Response (-50^{o})



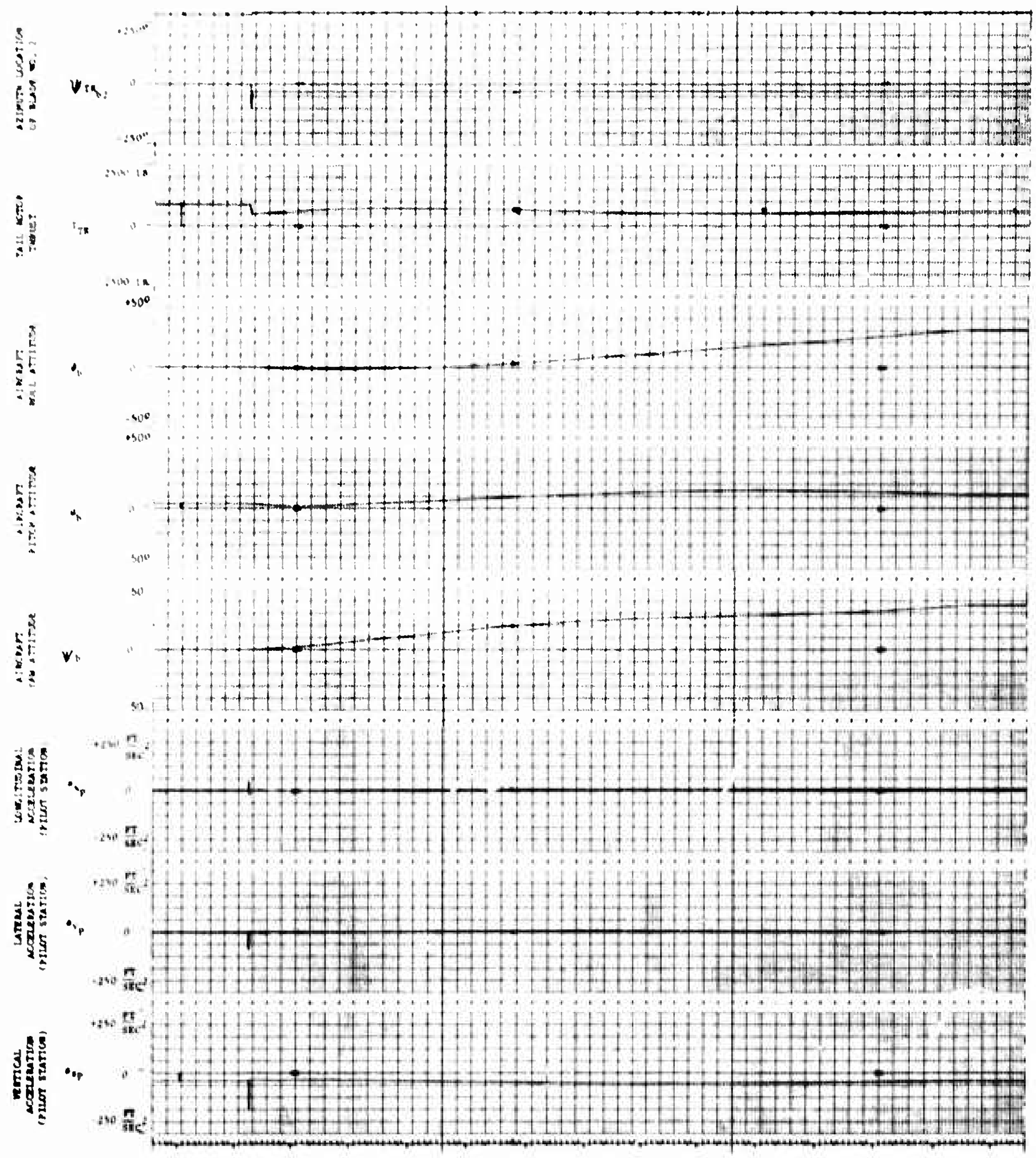
G.W.: 16,450 FSCG: 360.2 ψ Damage: 0° SAS: ON

Figure C-8. Aircraft "Hands Off" Response (0°)



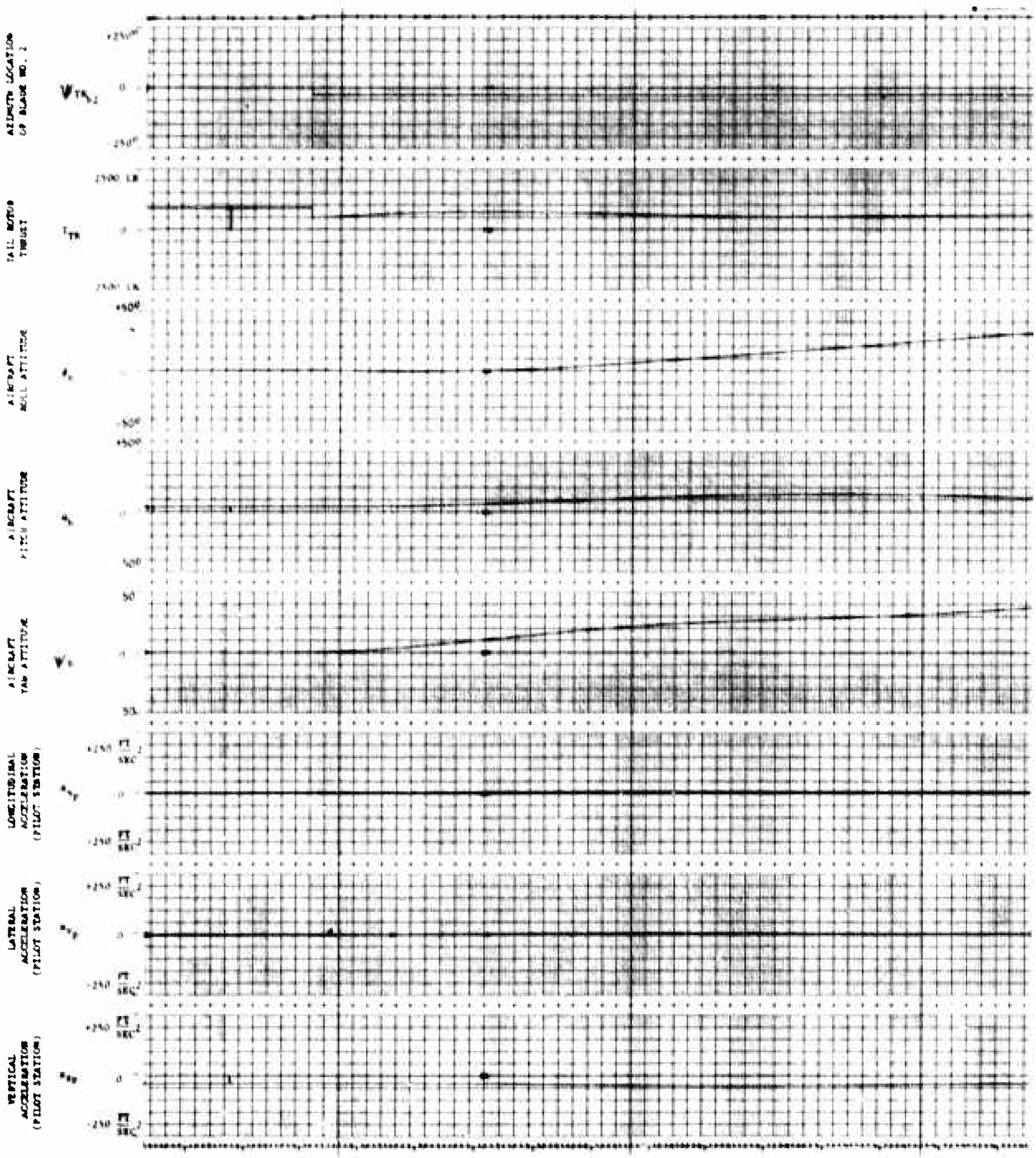
G.W.: 16,450 FSCG: 360.2 ψ Damage: 50^{o} SAS: ON

Figure C-9. Aircraft "Hands Off" Response (50^{o})



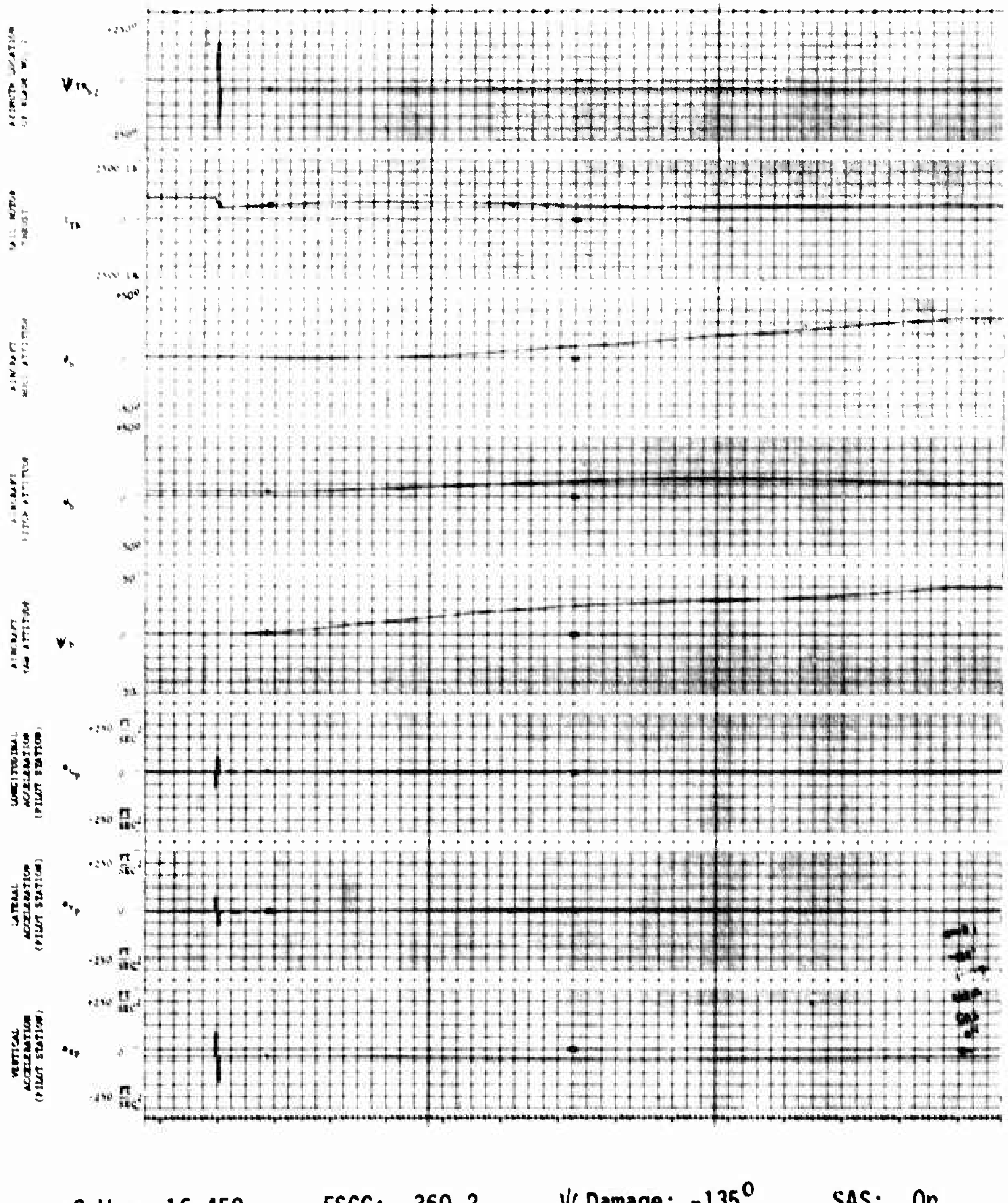
G.W.: 16,450 FSCG: 360.2 ψ Damage: 90^{o} SAS: ON

Figure C-10. Aircraft "Hands Off" Response (90^{o})



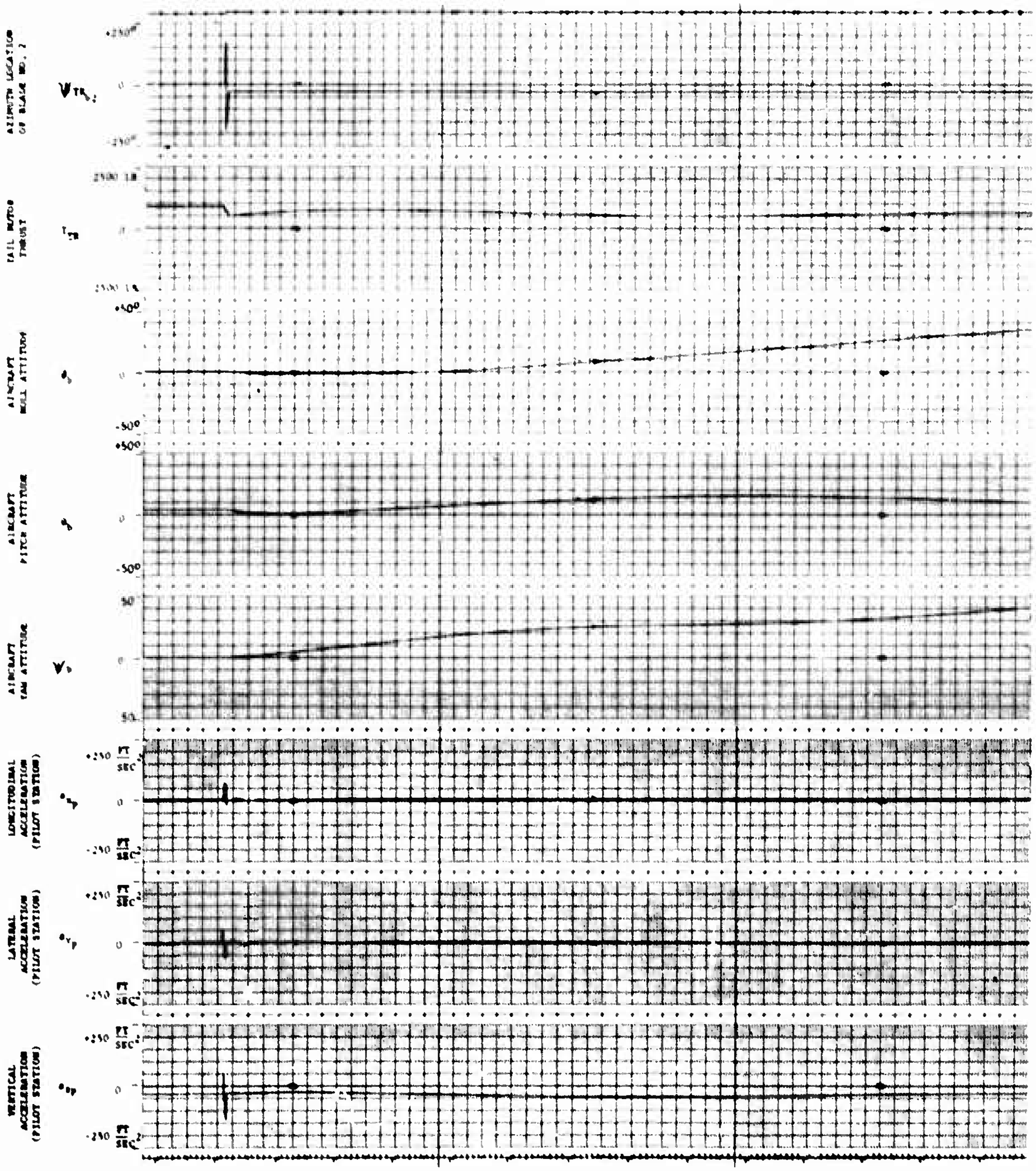
G.W.: 16,450 FSCG: 360.2 ψ Damage: 150^{O} SAS: ON

Figure C-11. Aircraft "Hands Off" Response (150^{O})



G.W.: 16,450 FSCG: 360.2 ψ Damage: -135^{O} SAS: On

Figure C-12. Aircraft "Hands Off" Response (-135^{O})



G. W.: 16,450 FSCG: 360.2 ψ Damage: -50° SAS: ON

Figure C-13. Aircraft "Hands Off" Response (-50°)

APPENDIX D

STEPPED TRANSITION TIME HISTORY TRIM DATA

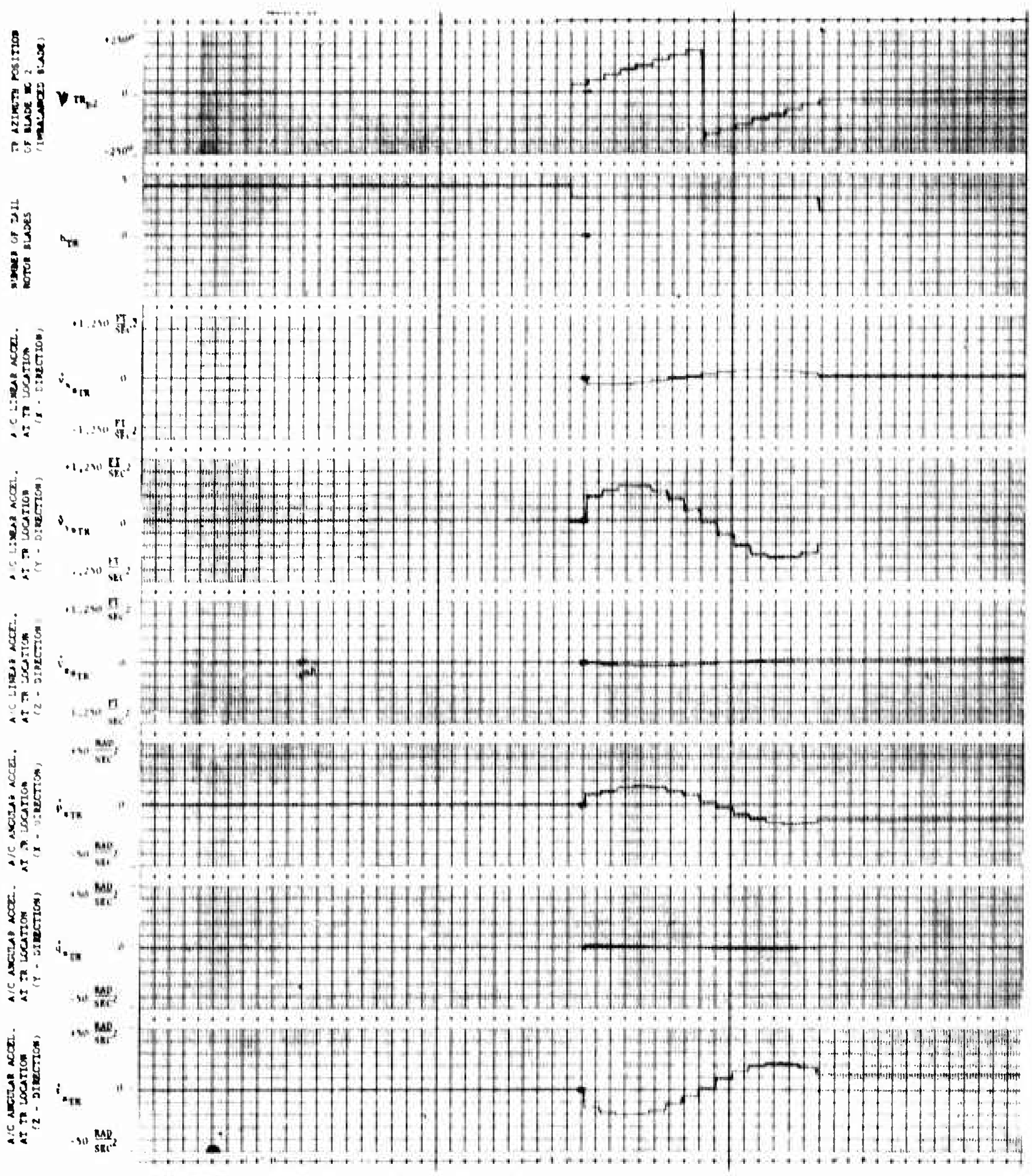
Figures D-1 through D-12, included in this Appendix, are the time history cases performed to determine the helicopter response to the unbalanced load during transition from four to two tail rotor blades. With the exception of Figure D-8, computer printouts have been provided for reference. Definitions for the key symbols and abbreviations used are provided below.

Symbol	Definition
TR b2	Tail Rotor (TR) Azimuth Position of Blade #2 (Imbalanced Blade)
b_{TR}	Number of Tail Rotor Blades
$\dot{v}_{xsTR}$	Aircraft Linear Accelerations at TR Location (FSTR, BLTR, WLTR) Measured Along TR Fixed Shaft in X-Direction
$\dot{v}_{ysTR}$	Aircraft Linear Accelerations at TR Location (FSTR, BLTR, WLTR) Measured Along TR Fixed Shaft in Y-Direction
$\dot{v}_{xsTR}$	Aircraft Linear Accelerations at TR Location (FSTR, BLTR, WLTR) Measured Along TR Fixed Shaft in X-Direction
$\dot{v}_{zsTR}$	Aircraft Linear Accelerations at TR Location (FSTR, BLTR, WLTR) Measured Along TR Fixed Shaft in Z-Direction
$\dot{p}_{sTR}$	Aircraft Angular Accelerations at TR Location (FSTR, BLTR, WLTR) Measured About TR Fixed Shaft in X-Direction
$\dot{q}_{sTR}$	Aircraft Angular Accelerations at TR Location (FSTR, BLTR, WLTR) Measured About TR Fixed Shaft in Y-Direction
$\dot{r}_{sTR}$	Aircraft Angular Accelerations at TR Location (FSTR, BLTR, WLTR) Measured About TR Fixed Shaft in Z-Direction

Symbol	Definition
T_{TR}	Tail Rotor Thrust
ϕ b	Aircraft Roll Attitude
θ b	Aircraft Pitch Attitude
ψ b	Aircraft Yaw Attitude
a_{xp}	Longitudinal Acceleration at Pilot Location (Along Body Z-Direction)
a_{yp}	Lateral Acceleration at Pilot Location (Along Body Y-Direction)
a_{zp}	Normal Acceleration at Pilot Location (Along Body Z-Direction)
F_{yITRb3}	Inertial Force Along TR Blade #3 (Spar) in the Y-Direction
$*T_{ITR}$	Total (Sum of All Three Blades) TR Inertial Force Along TR Shaft (-) Z-Direction
$*H_{ITR}$	Total (Sum of All Three Blades) TR Inertial Force Along TR Shaft (-) X-Direction
$*J_{ITR}$	Total (Sum of All Three Blades) TR Inertial Force Along TR Shaft (-) Y-Direction
$*M_{HITR}$	Total TR Hub Pitching Moment Due to Blade Inertial Loads (Moment About Shaft Y-Axis)
$*L_{HITR}$	Total TR Hub Rolling Moment Due to Blade Inertial Loads (Moment About Shaft X-Axis)
$*Q_{HITR}$	Total Moment About Shaft Due to Blade Inertial Loads (Moment About Shaft Z-Axis)
$\dot{p}$	Aircraft Roll Acceleration
$\dot{q}$	Aircraft Pitch Acceleration
$\dot{r}$	Aircraft Yaw Acceleration
p	Roll Rate
q	Pitch Rate

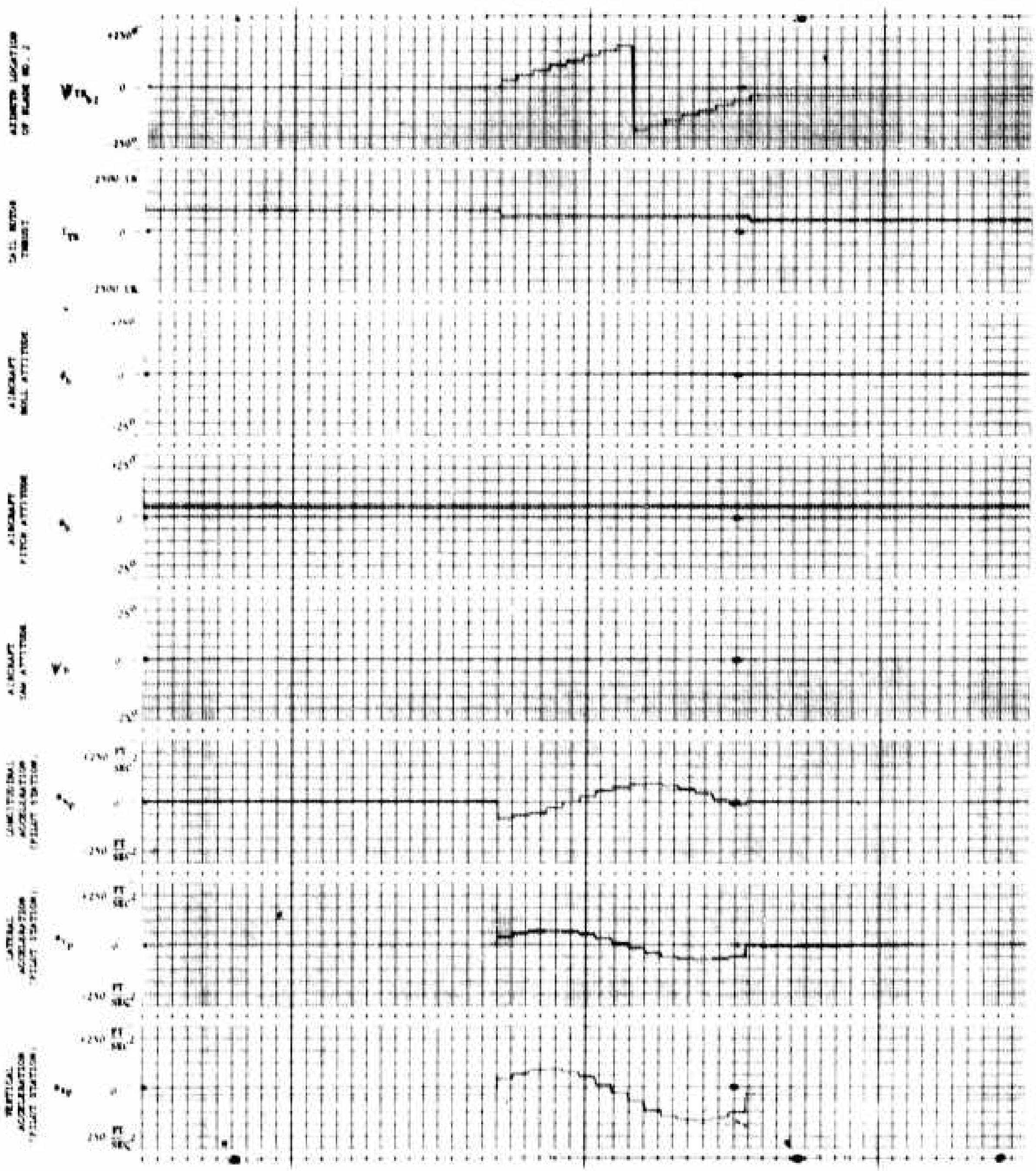
Symbol	Definition
r	Yaw Rate
V	Airspeed

*These total forces and moments imply the summation for all three blades and are the inertial contributions without aerodynamic contributions.



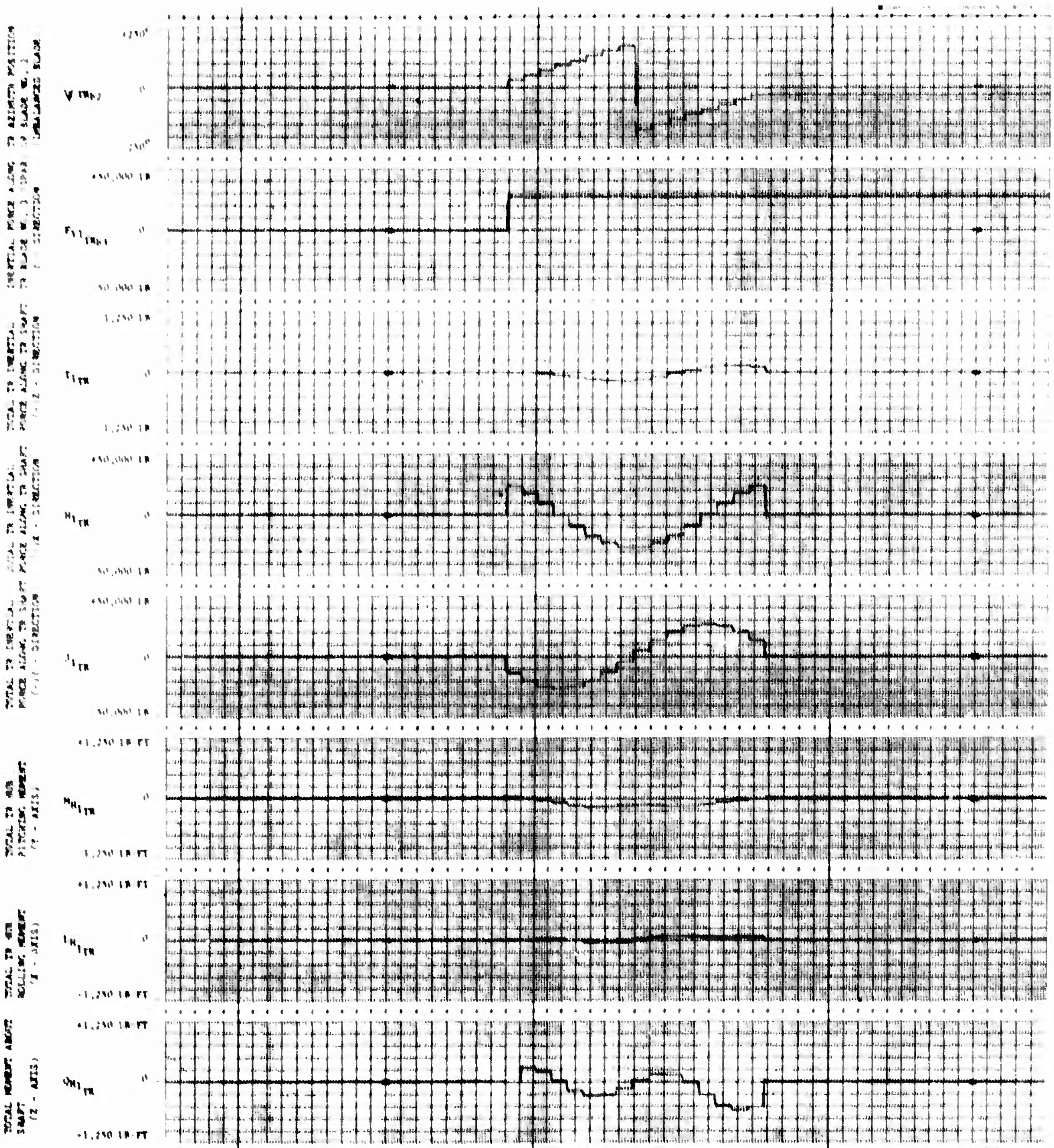
G.W.: 16,450 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF
H_D: SLS

Figure D-1. Stepped Transition Time History



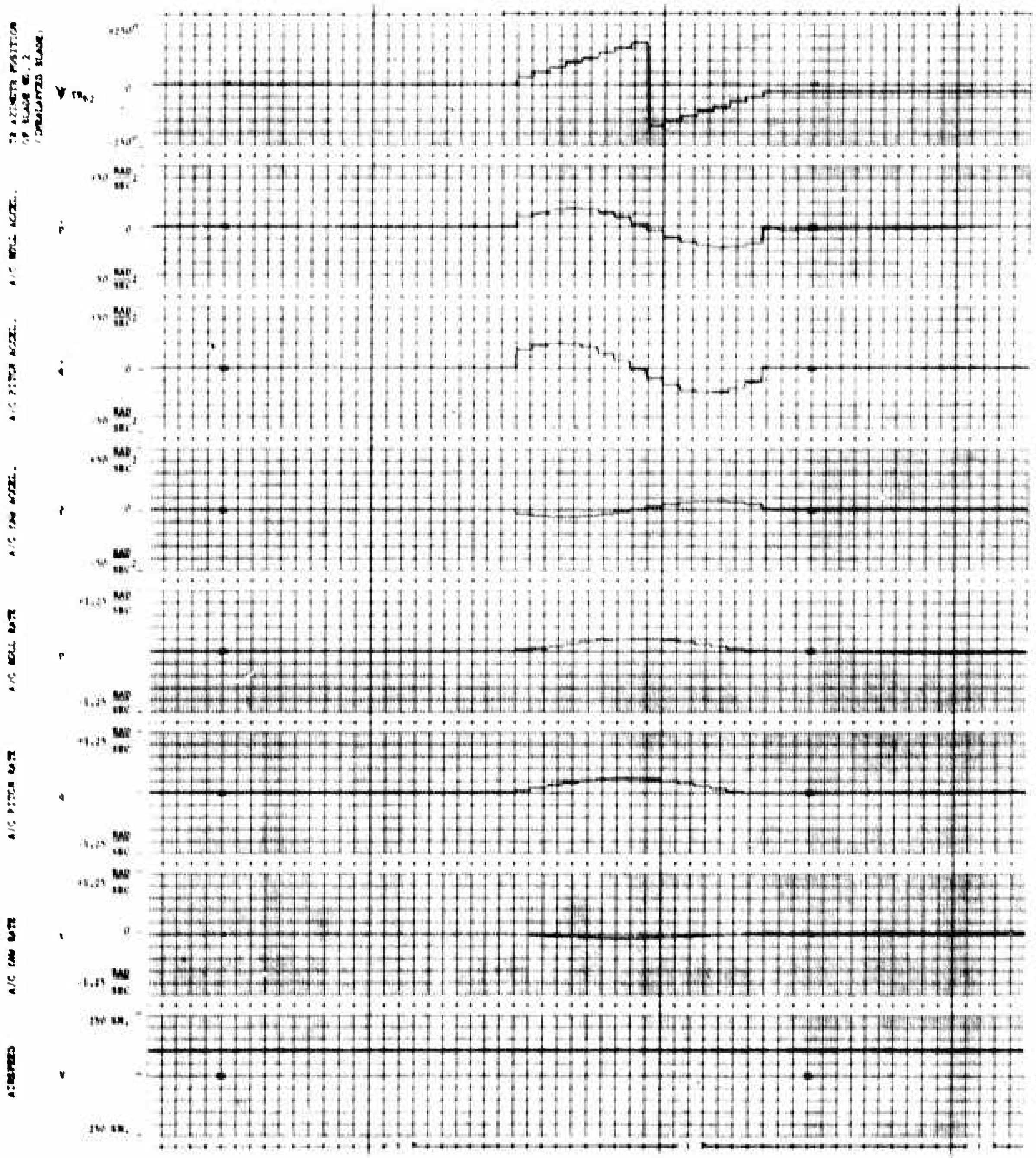
G.W.: 16,450 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-1. (continued)



G.W.: 16,450 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-1. (continued)



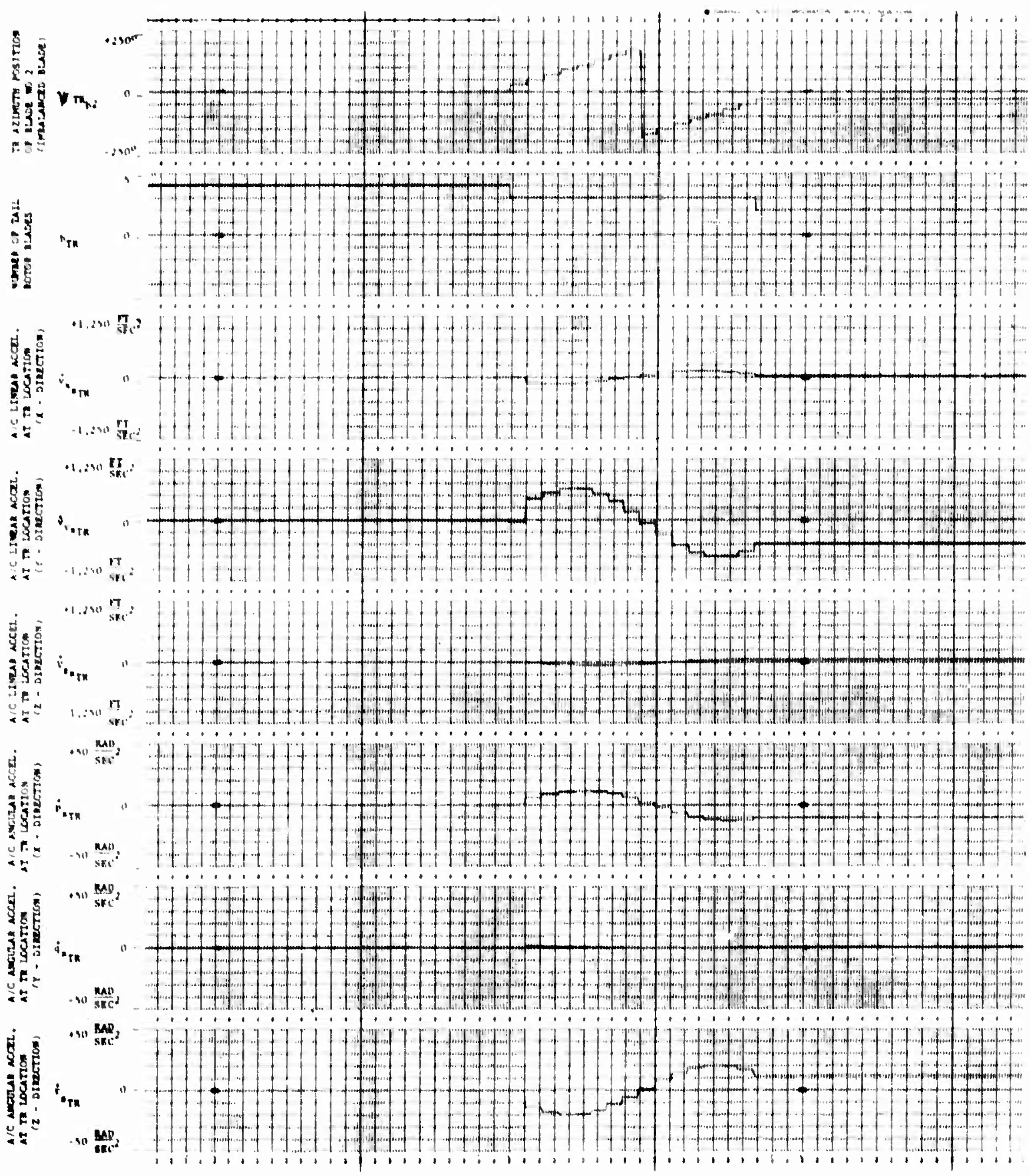
G.W.: 16,450 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-1. (continued)

UTTAS(876)   1-21-77   18-NOV-77   RUN 9.

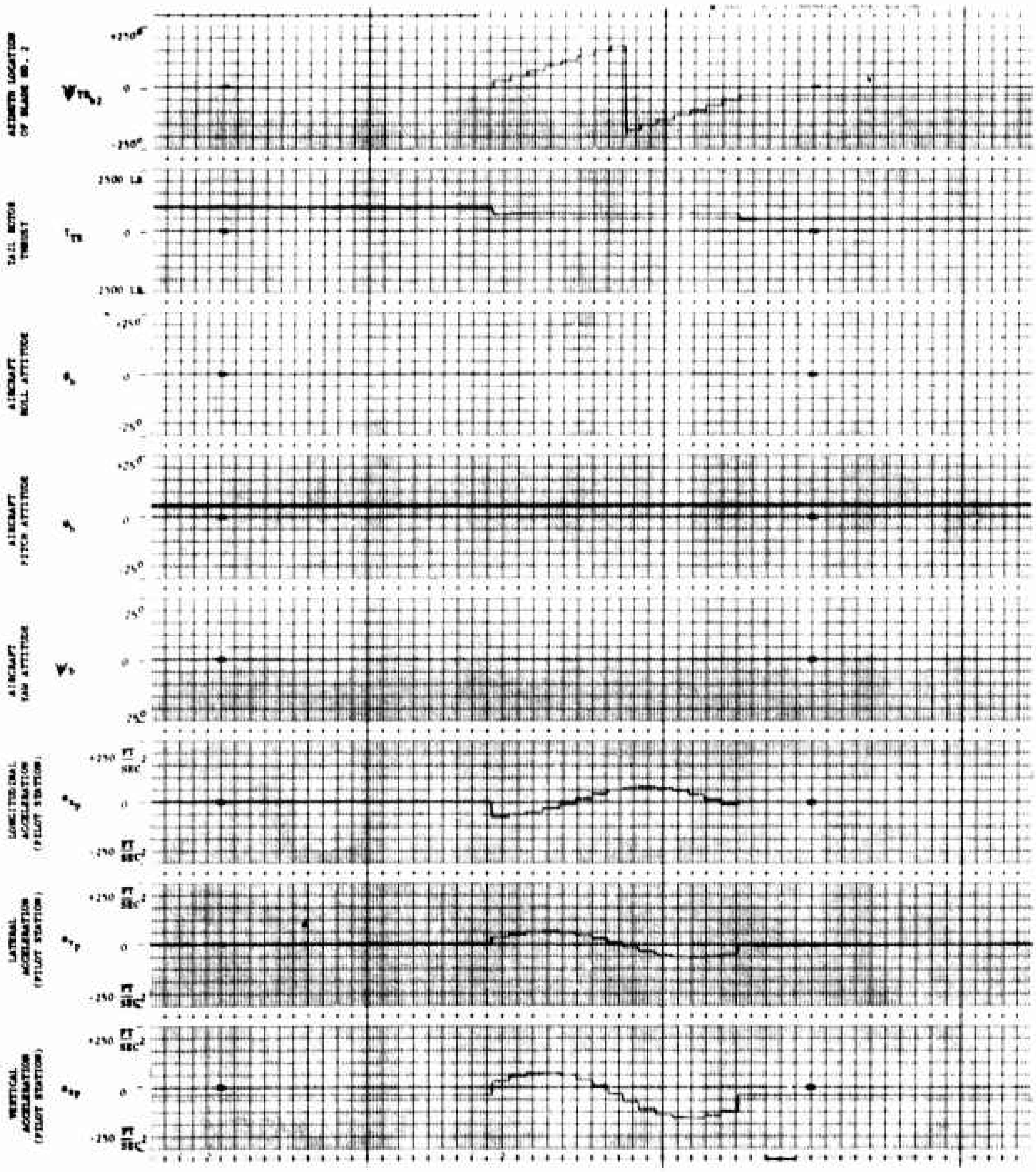
WEIGHT	16450.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	4330.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	30515.0	RHO	0.23768000E-2	VSOUND	1116.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.59340281	A1S	-1.2161287	IHT	-2.7695562	XA	46.290737
LNGSTK	0.7472700	B1S	0.0851660	IS	-3.0	XB	19.090889
COLSTK	16.525114	THETAB	16.525114	TH75MR	6.4451140	XC	37.781963
PEDAL	11.107155	THETTR	10.441292	TH75TR	4.9412920	XP	50.590854
XAIN	4.6290737	XBIN	1.9090889	XCIN	3.7781963	XPIN	2.7317919
XBACTP	21.024400	XBACTI	2.1024400	RSTR.	0.0	PSTR	0.0
VXB	168.65003	THETAB	3.6000052	AA0F	3.1014497	QSTR	0.0
VYB	11.391428	PHIB	0.0	AA1F	-5.6061062	RSTR	0.0
VZB	10.847795	BETAWF	3.6790895	BB1F	0.88649945E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1980659	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24187694	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.36200885	MHITR	0.0
ALFWF	0.55080906	EKTX	1.3847468	EKWFX	0.92604990	LHITR	0.0
CHITPP	82.003840	EKTZ	1.6490261	EKWFZ	1.0079961	QHITR	0.0
EKTR	0.0	EPSHT	0.40679089	SIGHT	0.64751975	XITR	0.0
QWF	37.429361	KQHT	0.87177979	KQVT	0.83100377	YITR	0.0
MUXS	0.23325674	CTSIG	0.67870526E-1	LTOT	3.4630934	ZITR	0.0
MUYS	0.15725112E-1	CHSIG	-0.47586950E-2	DTOT	24.481060	LITR	0.0
MUZS	0.27690011E-2	COMSIG	0.49892652E-6	TTR	837.04561	MITR	0.0
LAMBMR	-0.97539494E-2	NZ	0.99785491	HPMR	1133.2135	NITR	0.0
DWSMMR	0.12522958E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.0642155
XMR	1922.0494	HBAR	-1100.6890	VXBDOT	0.15184248E-2	AYP	-0.24486269E-1
YMR	-254.36815	JBAR	254.36815	VYBDOT	-0.14368817E-1	AZP	-32.103912
ZMR	-15644.553	TBAR	15724.929	VZBDOT	0.23989519E-2	VXP	168.65003
LMR	-5026.5936	LBARH	-2281.0183	PDOT	-0.95050965E-2	VYP	11.391428
MMR	-842.14135	MBARH	-15256.386	QDOT	0.28261896E-2	VZP	10.847795
NMR	22507.512	QBAR	23083.979	RDOT	-0.29749400E-2	RSTR.	0.0
XWF	-893.68400	XT	-23.853153	XTR	0.0	PSIDMG	-150.0
YWF	-361.12760	YT	-170.11212	YTR	786.62407	BTR	4.0
ZWF	-138.22601	ZT	464.63322	ZTR	-286.38838	MADD	0.0
LWF	556.64727	LT	-395.81927	LTR	4831.4717	XADD	0.0
MWF	-3392.2619	MT	13183.227	MTR	-8870.7855	YADD	0.0
NWF	-3194.7152	NT	4970.2169	NTR	-24372.235	ZADD	0.0
XHT	-13.177281	XVT	-10.675871	ALFHTT	-4.7546483	NADD	0.0
YHT	-1.9745510	YVT	-176.13757	ALFVTT	3.8617782	LADD	0.0
ZHT	464.26319	ZVT	0.37803121	AAB1F	5.6060070		

Figure D-1. (continued)



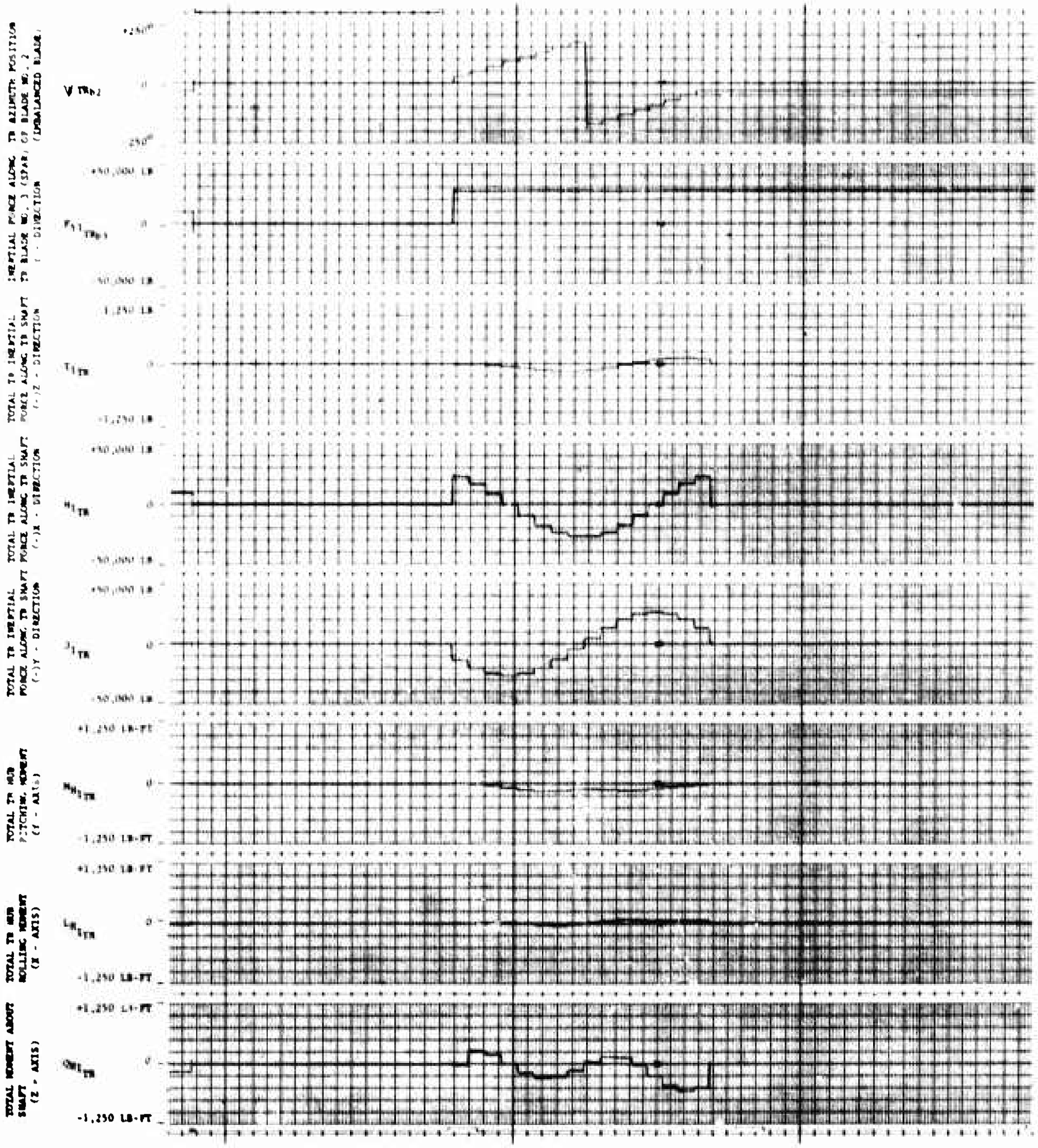
G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-2. Stepped Transition Time History



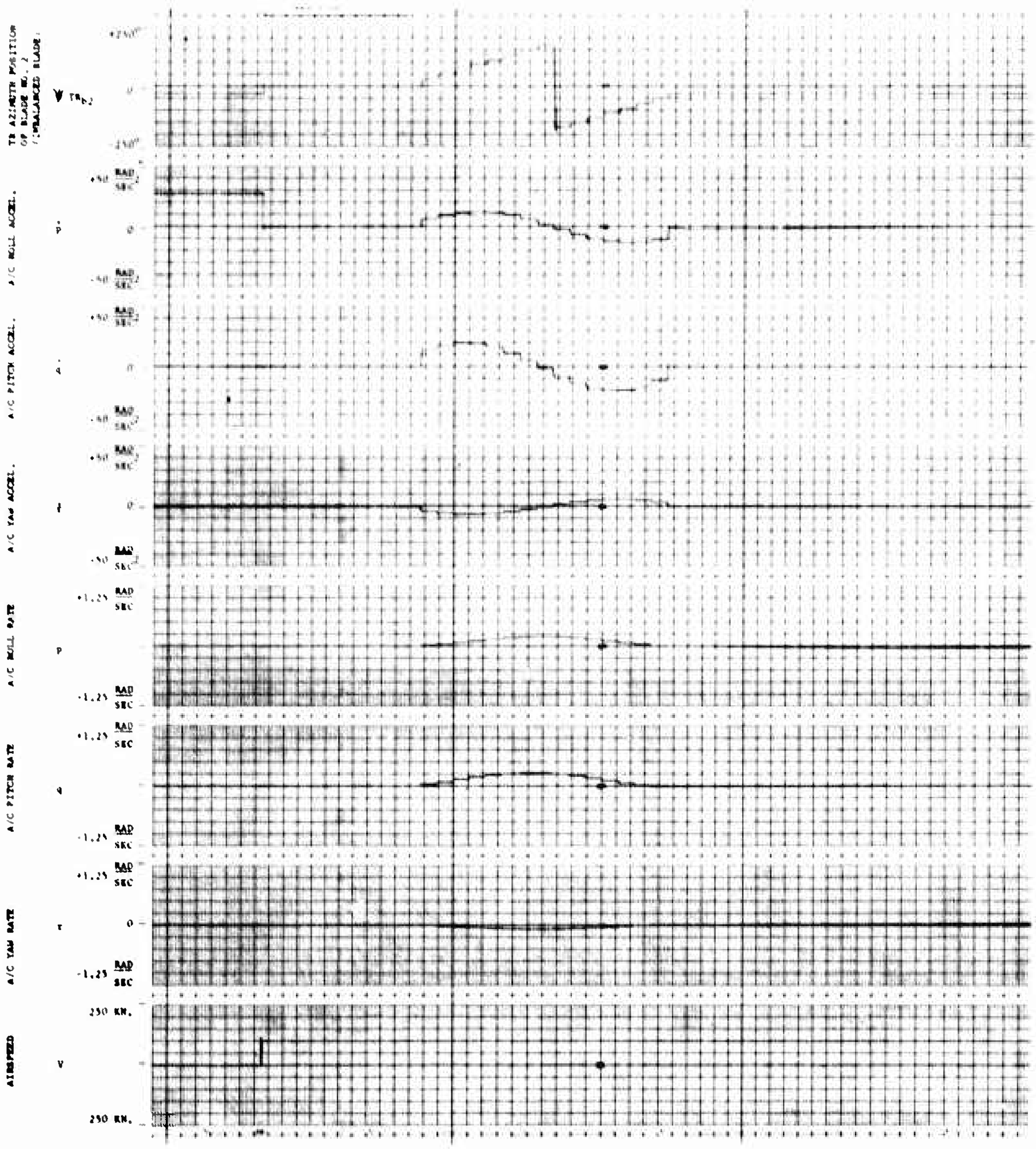
G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-2. (continued)



G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-2. (continued)



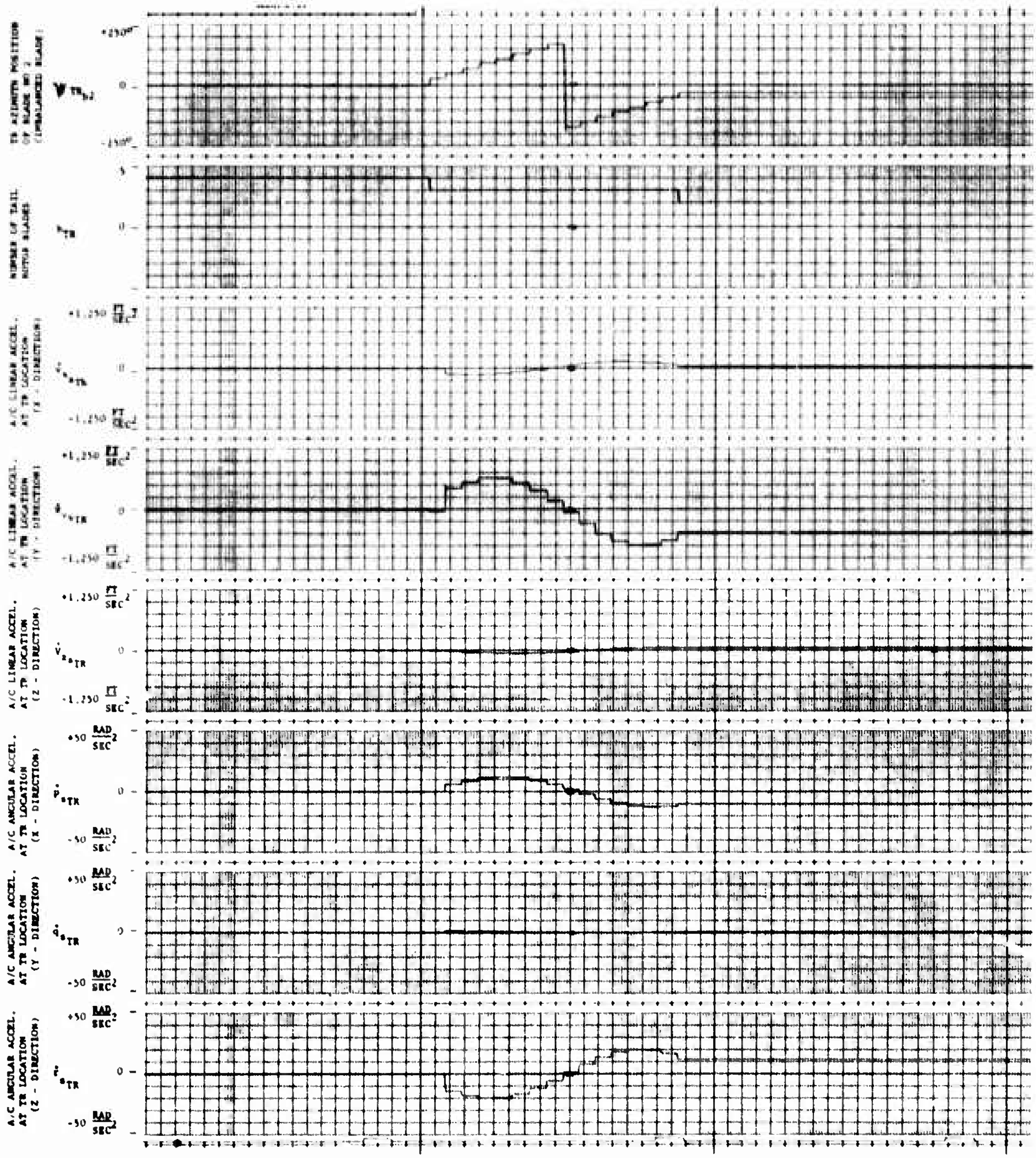
G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: SLS

Figure D-2. (continued)

UTTAS(976) 1-21-77 1-DEC-77 RUN 15.

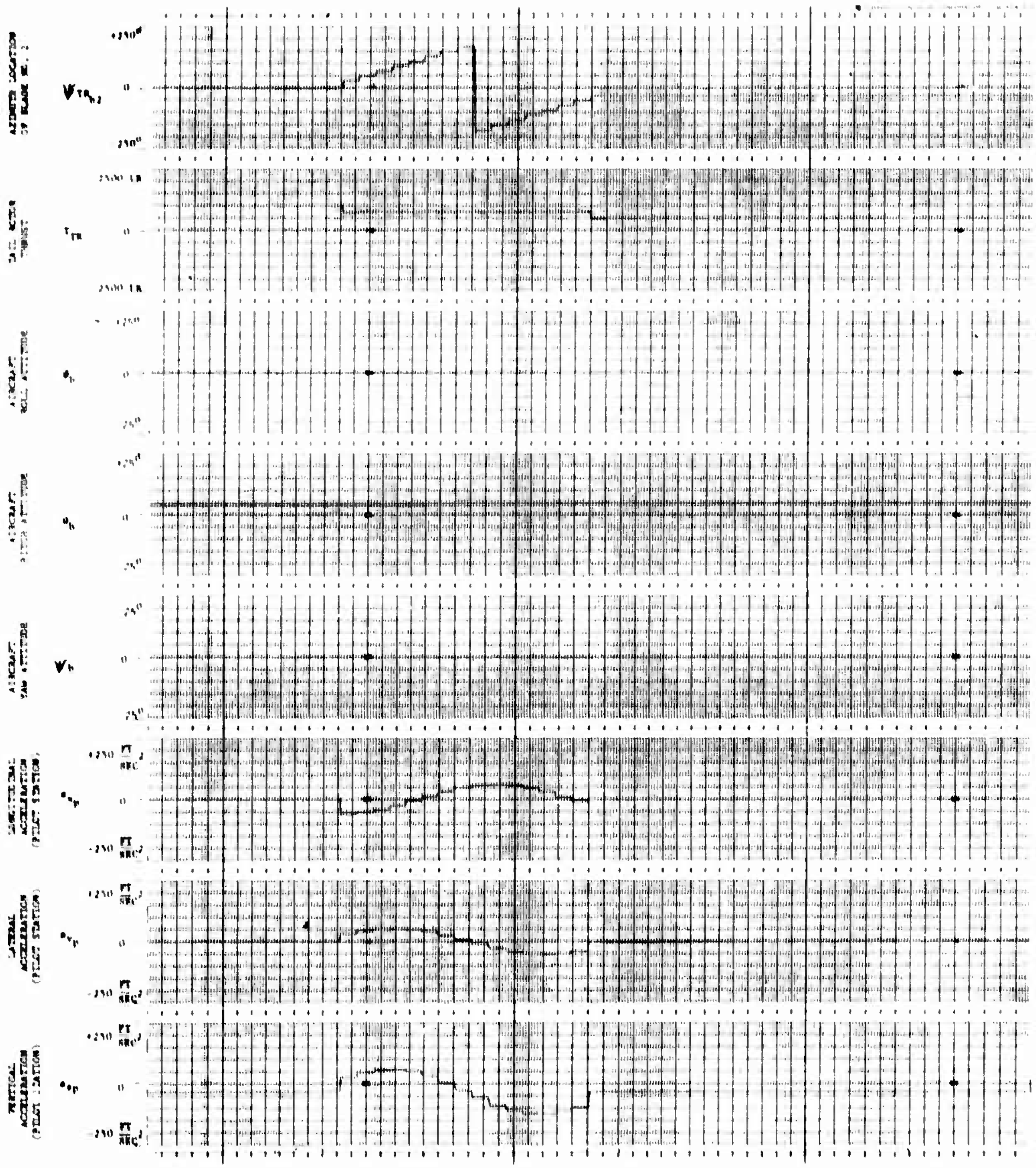
WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	5468.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40287.0	RHO	0.23780000E-2	VSOUND	1117.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-2	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.55000	NBSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	1.0	PASCNT	1703.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.86407807	A1S	-1.5735975	IHT	-1.5307594	XA	44.599507
LNGSTK	8.9744305	B1S	9.5056636	IS	-3.0	XB	18.288231
COLSTK	17.368530	THETA0	17.368530	TH75MR	7.2885302	XC	43.053315
PEDAL	10.654176	THETTR	18.920412	TH75TR	5.4204127	XP	52.067596
XAIN	4.4599506	XBIN	1.0200231	XCIN	4.3053314	XPIN	2.8115771
XBACTP	20.540001	XBACTI	2.0540001	RSTR.	0.0	PSTR	0.0
VXB	168.47276	THETAB	4.4973503	AA0F	3.9343147	QSTR	0.0
VYB	11.514601	PHIB	0.0	AA1F	-5.6586446	RSTR	0.0
VZB	13.251871	BETAWF	3.6860218	BB1F	0.10634260	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.7133096	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.32871081	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.41096448	MHITR	0.0
ALFWF	0.71200095	EKTX	1.3770799	EKWFX	0.92773891	LHITR	0.0
CHITPP	82.133764	EKTZ	1.6437669	EKWFZ	1.0078662	QHITR	0.0
EKTR	0.0	EPSWT	0.48686021	SIGHT	0.64873984	XITR	0.0
QWF	38.100076	KOHT	0.87177979	KQVT	0.83097041	YITR	0.0
MUXS	0.23318606	CTSIG	0.82561000E-1	LTOT	3.7561543	ZITR	0.0
MUYS	0.15895144E-1	CHSIG	-0.52378336E-2	DTOT	24.538828	LITR	0.0
MUZS	0.60956703E-2	COMSIG	0.63290051E-6	TTR	923.23728	MITR	0.0
LAMBMR	-0.90077906E-2	NZ	1.0024400	HPMR	1356.5269	NITR	0.0
DWSMMR	0.15103461E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.1252819
XMR	2212.8891	HBAR	-1213.5541	VXBDOT	-0.36712519	AYP	-0.46938086
YMR	-409.79052	JBAR	409.79052	VYBDOT	-0.15216057	AZP	-32.283221
ZMR	-19037.561	TBAR	19128.772	VZBDOT	-0.17890862	VXP	168.47276
LMR	-6253.4930	LBARH	-2350.6513	PDOT	-0.12327964	VYP	11.514601
MMR	2841.7548	MBARH	-15298.689	QDOT	0.83272937E-2	VZP	13.251871
NMR	26793.483	QBAR	27632.956	RDOT	0.36313886E-1	RSTR.	0.0
XWF	-918.96868	XT	-22.970491	XTR	0.0	PSIDMG	-150.0
YWF	-368.41143	YT	-179.69472	YTR	967.62377	BTR	4.0
ZWF	-154.46675	ZT	373.22594	ZTR	-315.78983	HADD	0.0
LWF	567.82501	LT	-399.98480	LTR	5328.9746	XADD	0.0
MWF	-3314.2704	MT	10592.218	MTR	-9784.2216	YADD	0.0
NWF	-3257.7543	NT	5014.3805	NTR	-26881.876	ZADD	0.0
XHT	-12.448448	XVT	-18.538042	ALFHTT	-3.7060076	NADD	0.0
YHT	-1.8171680	YVT	-177.87755	ALFVTT	3.9184495	LADD	0.0
ZHT	372.82598	ZVT	0.39997024	AABB1F	5.6596437		

Figure D-2. (continued)



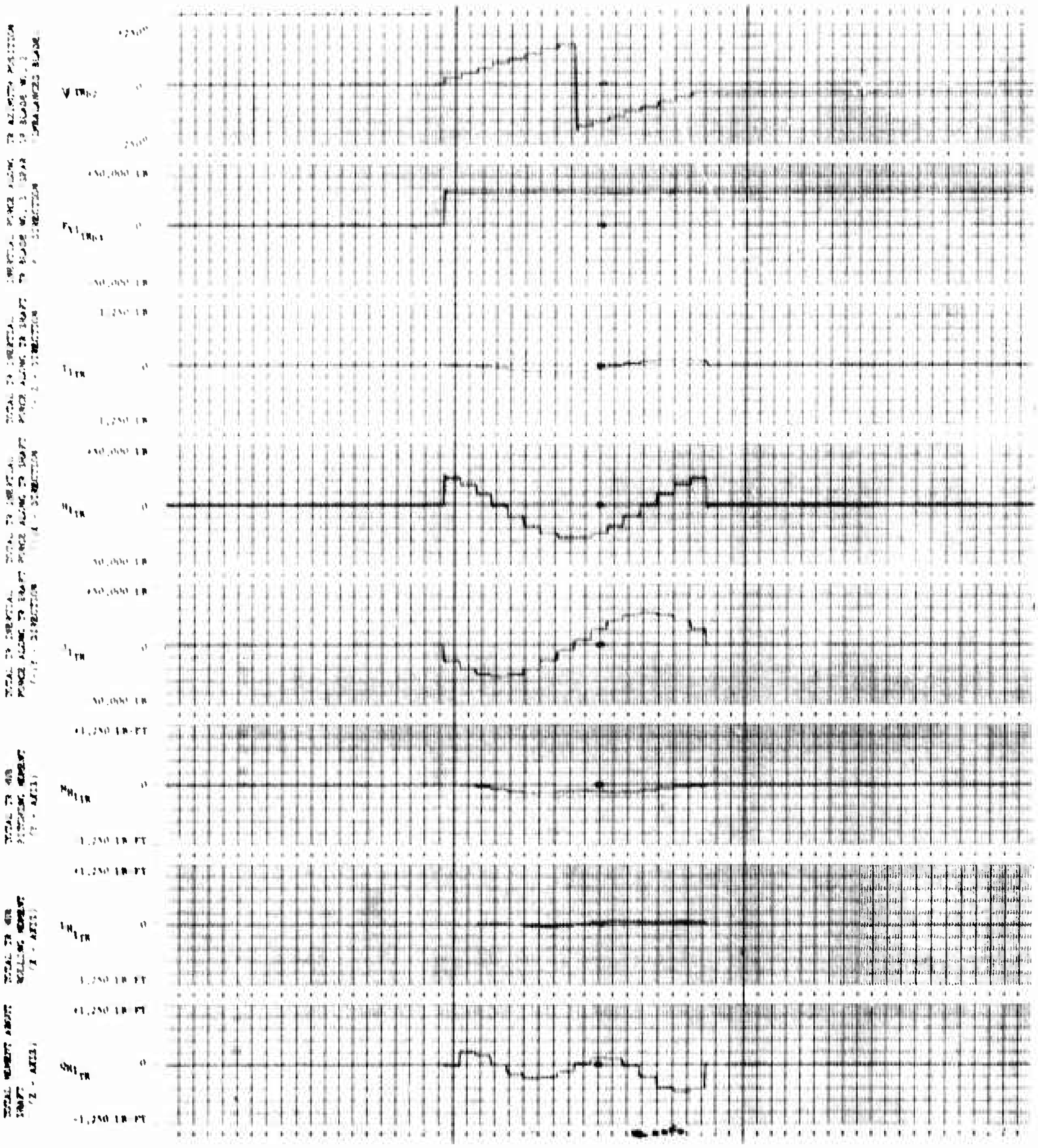
G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-3. Stepped Transition Time History



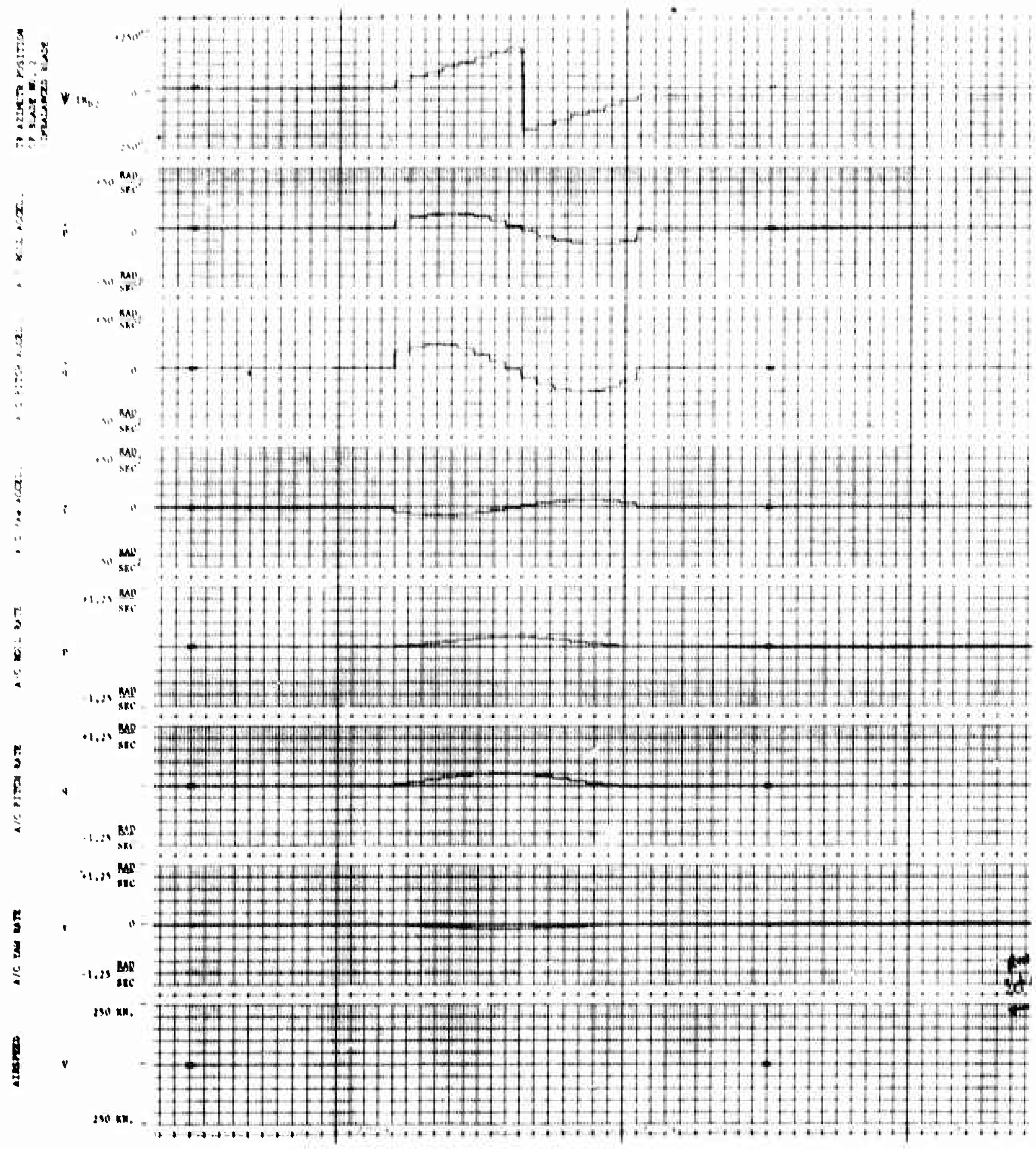
G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-3. (continued)



G.W.: 19,900 Lb. FSCG: 360.2 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-3. (continued)



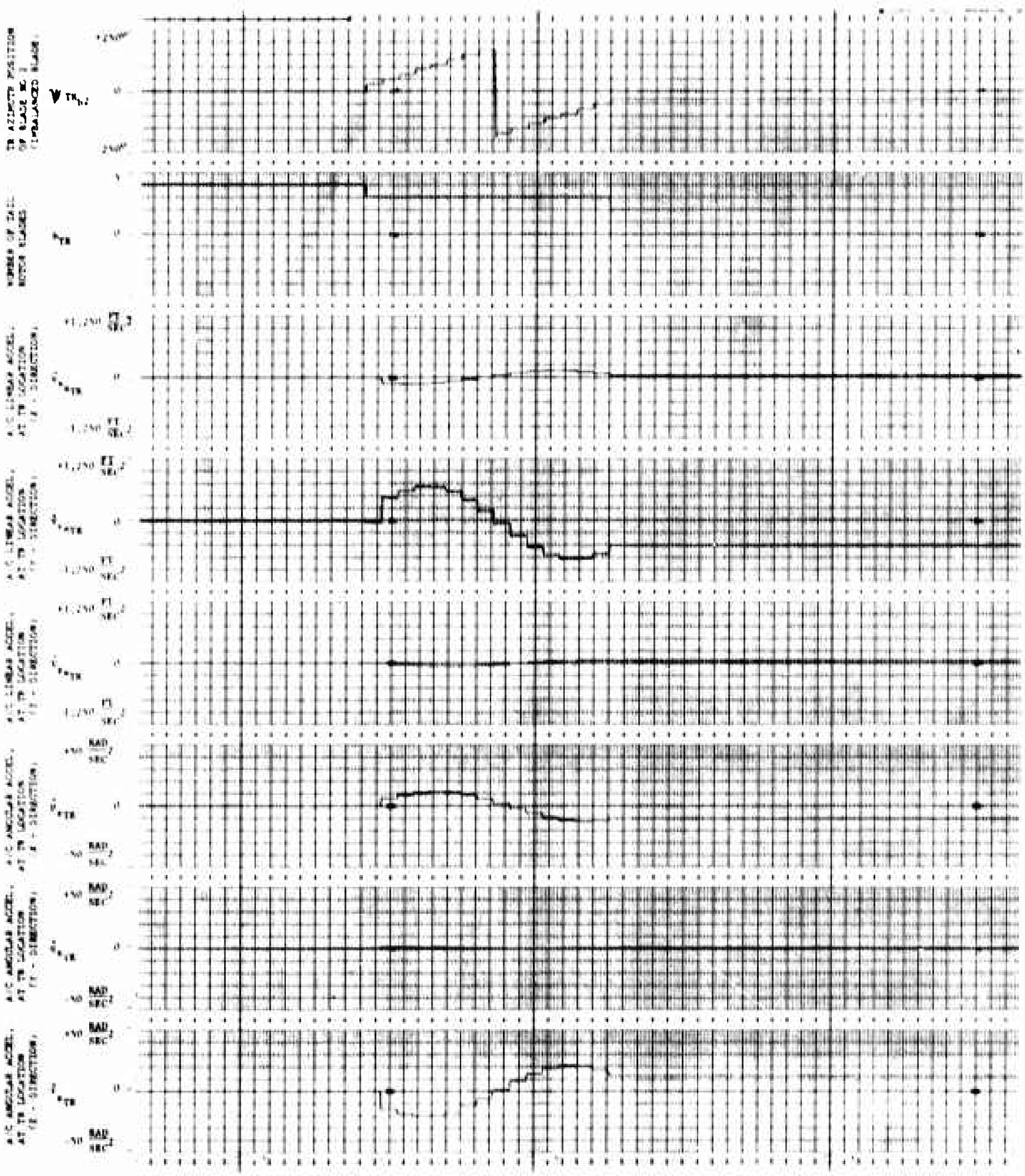
G.W.: 19,900 Lb.   FSCG: 360.2   V: 100 Kts N_R: 100%   SAS: OFF H_D: 10,000 Ft

Figure D-3. (continued)

UTTAS(S76)   1-21-77   1-DEC-77   RUN 16.

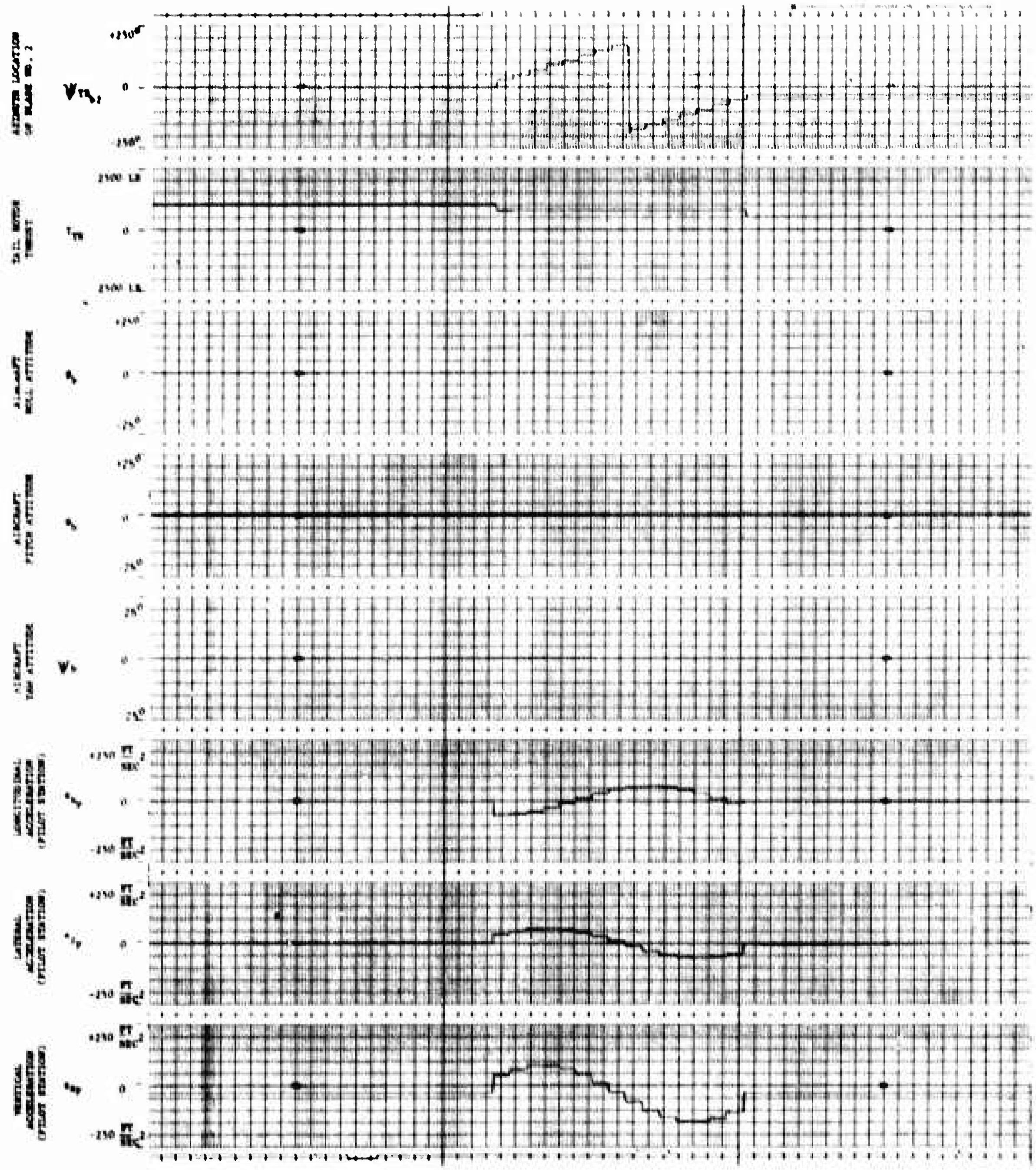
WEIGHT	19900.0	FSCG	360.20000	V	100.0	PSIIR2	0.0
IX	5460.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40207.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.55000	NSBS	5.0	TWSTTR	-10.0	WLVT	273.0
XFR	1.0	PASCHT	1521.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.1020375	A1S	-2.0265006	IHT	1.9187491	XA	43.112265
LNGSTK	4.5865921	B1S	9.6470191	IB	-3.0	XB	19.650604
COLSTK	19.456146	THETAB	19.456146	TH75MR	9.3761466	XC	56.100917
PEDAL	10.927249	THETTR	21.698625	TH75TR	8.1986258	XP	51.310573
XAIN	4.3112265	XBIN	1.9650604	XCIN	5.6100916	XPIN	2.7706989
XBACTP	21.710193	XBACTI	2.1710192	RSTR.	0.0	PSTR	0.0
VXB	160.59904	THETAB	4.0057607	AA0F	4.1269107	QSTR	0.0
VYB	13.600913	PHIB	0.0	AA1F	-4.0601123	RSTR	0.0
VZB	11.007422	BETAWF	4.2713551	BB1F	0.98767074E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.2053561	MITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.36240959	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.23803248	MMITR	0.0
ALFWF	-0.92723035	EKTX	1.3271985	EKWFX	0.92583362	LHITR	0.0
CHITPP	81.987202	EKTZ	1.7810004	EKWFZ	1.0000128	QHITR	0.0
EKTH	0.0	EPSHT	0.49271355	SIGHT	0.75175852	XITR	0.0
QWF	29.304076	KQHT	0.87177979	KQVT	0.82814882	YITR	0.0
MUXS	0.23325570	CTSIG	0.11070312	LTOT	1.5950656	ZITR	0.0
MUYS	0.10706202E-1	CHSIG	-0.69353520E-2	DTOT	24.634270	LITR	0.0
MUZS	0.46954605E-2	COMSIG	0.89905006E-6	TTR	1000.4578	MITR	0.0
LAMBMR	-0.16123065E-1	NZ	0.99454092	HPMR	1377.7843	NITR	0.0
DWSMMR	0.20210534E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.5015305
XMR	2176.0520	MBAR	-1186.5571	VXBDOT	0.24358972	AYP	0.66015051
YMR	-207.92724	JBAR	207.92724	VYBDOT	0.29260293	AZP	-31.929054
ZMR	-10050.477	TBAR	10940.002	VZBDOT	0.99840965E-1	VXP	160.59904
LMR	-4055.7333	LBARM	-1460.0970	PDOT	0.20262970	VYP	13.600913
MMR	7296.5053	MBARM	-10046.266	QDOT	-0.59063979E-2	VZP	11.007422
NMR	27461.506	QBAR	20064.348	RDOT	0.22989054E-2	RSTR.	0.0
XWF	-696.19282	XT	-3.7337091	XTR	0.0	PSIDMG	-150.0
YWF	-327.93775	YT	-150.60654	YTR	940.19274	BTR	4.0
ZWF	-35.504770	ZT	244.23486	ZTR	-342.20283	MADD	0.0
LWF	519.01357	LT	-335.21935	LTR	5774.6957	XADD	0.0
MWF	-3784.0117	MT	6938.9168	MTR	-18602.584	YADD	0.0
NWF	-2988.5615	NT	4204.0500	NTR	-29138.304	ZADD	0.0
XHT	2.0474503	XVT	-5.7011594	ALFHTT	-3.0009157	NADD	0.0
YHT	-1.5634161	YVT	-149.12312	ALFVTT	4.6540783	LADD	0.0
ZHT	243.72989	ZVT	0.50577600	AABB1F	4.8613135		

Figure D-3. (continued)



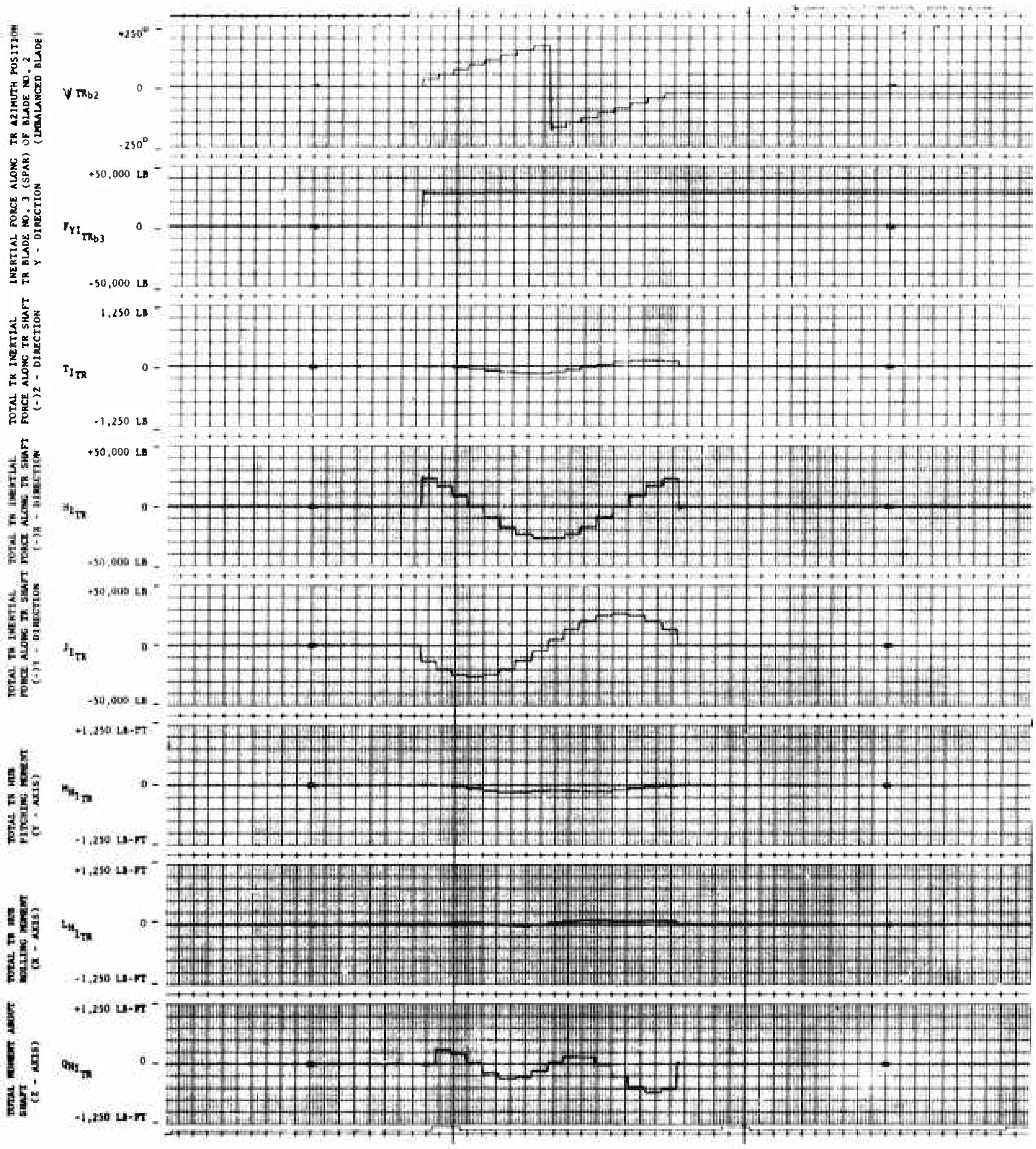
G.W.: 19,900 Lb. FSCG: 347 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-4. Stepped Transition Time History



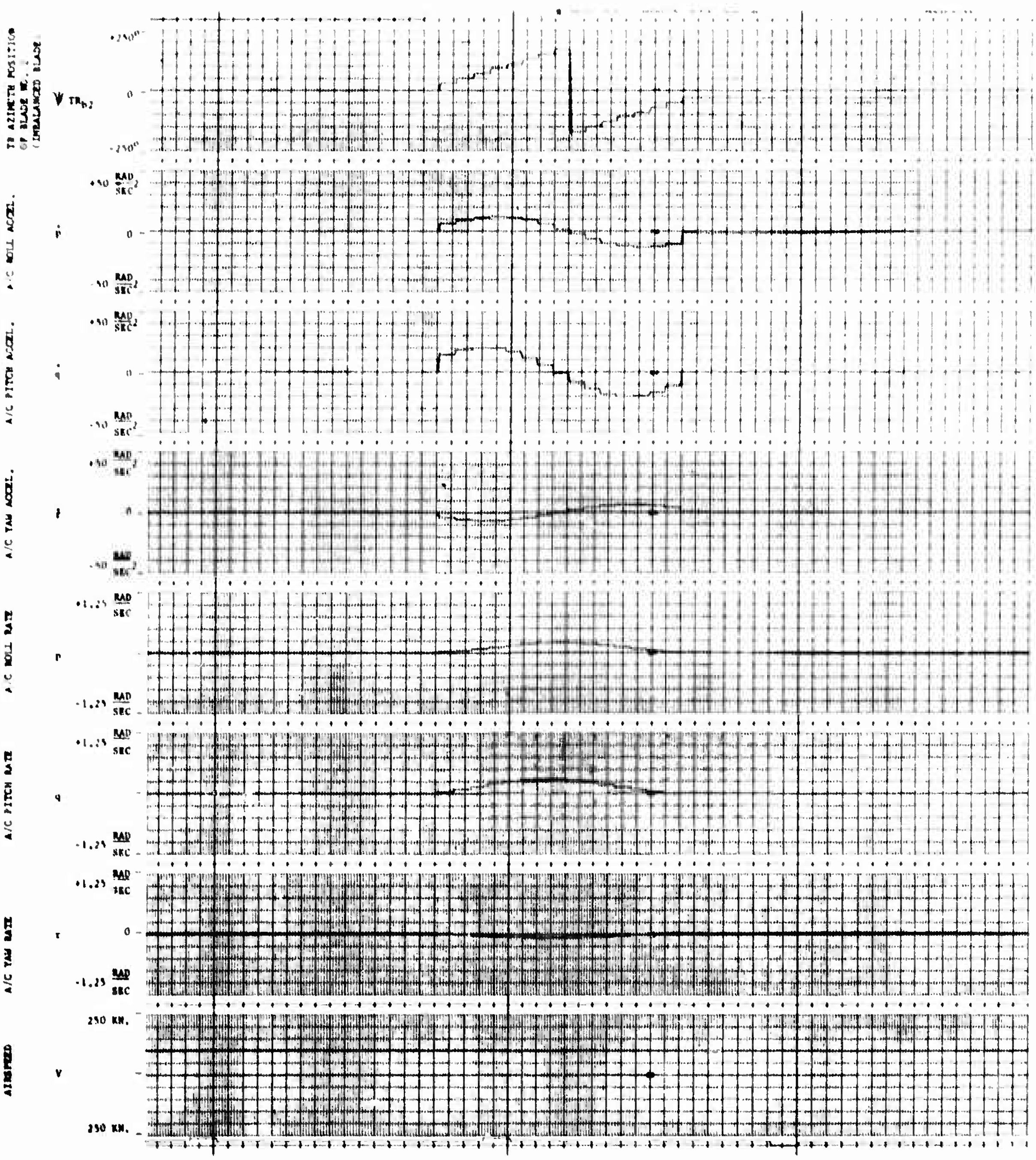
G.W.: 19,900 Lb. FSCG: 347 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-4. (continued)



G.W.: 19,900 Lb.   FSCG: 347   V: 100 Kts N_R: 100%   SAS: OFF H_D: 10,000 Ft

Figure D-4. (continued)



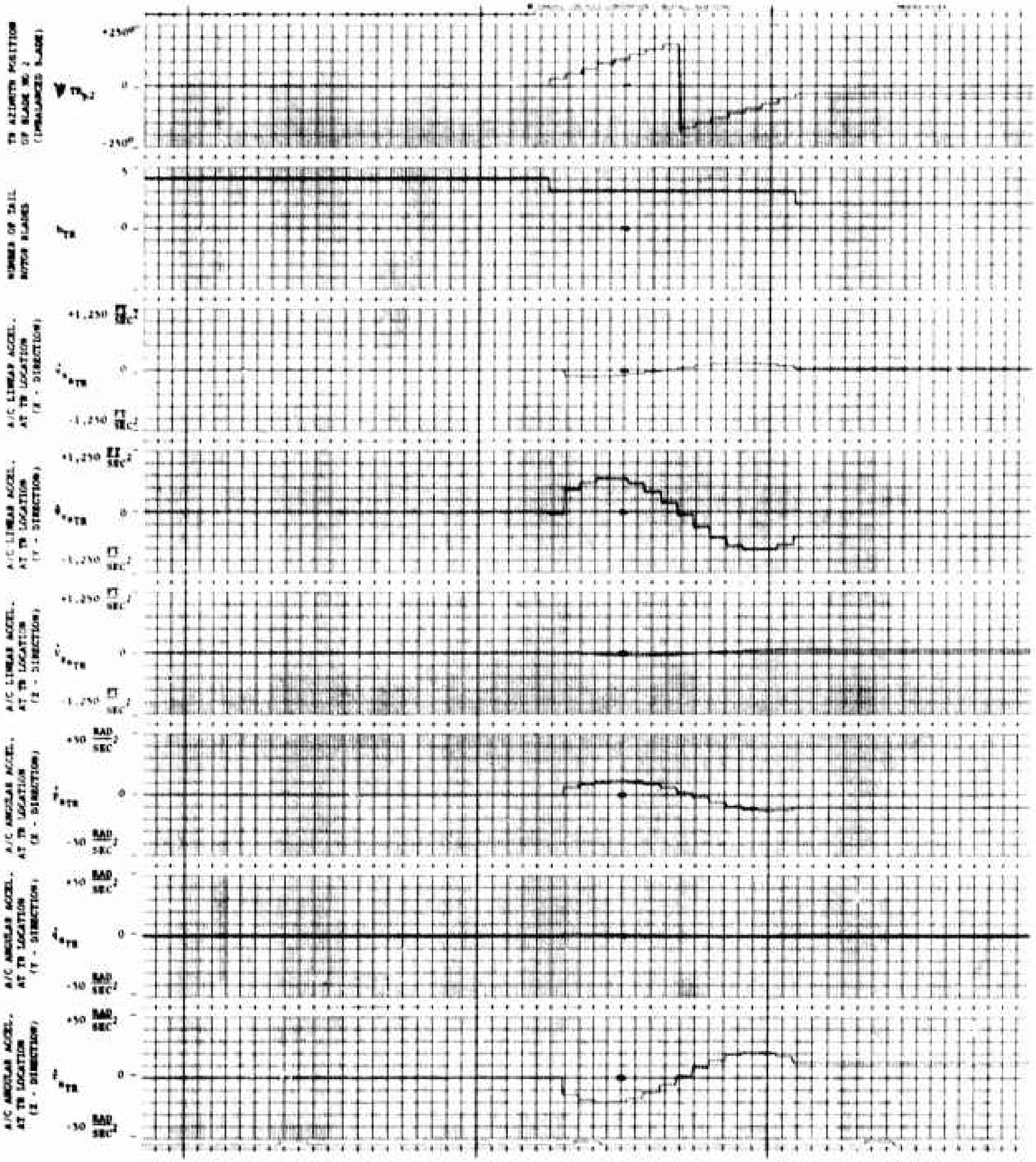
G.W.: 19,900 Lb. FSCG: 347 V: 100 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-4. (continued)

UTTAS(S76) 1-21-77 1-DEC-77 RUN 17.

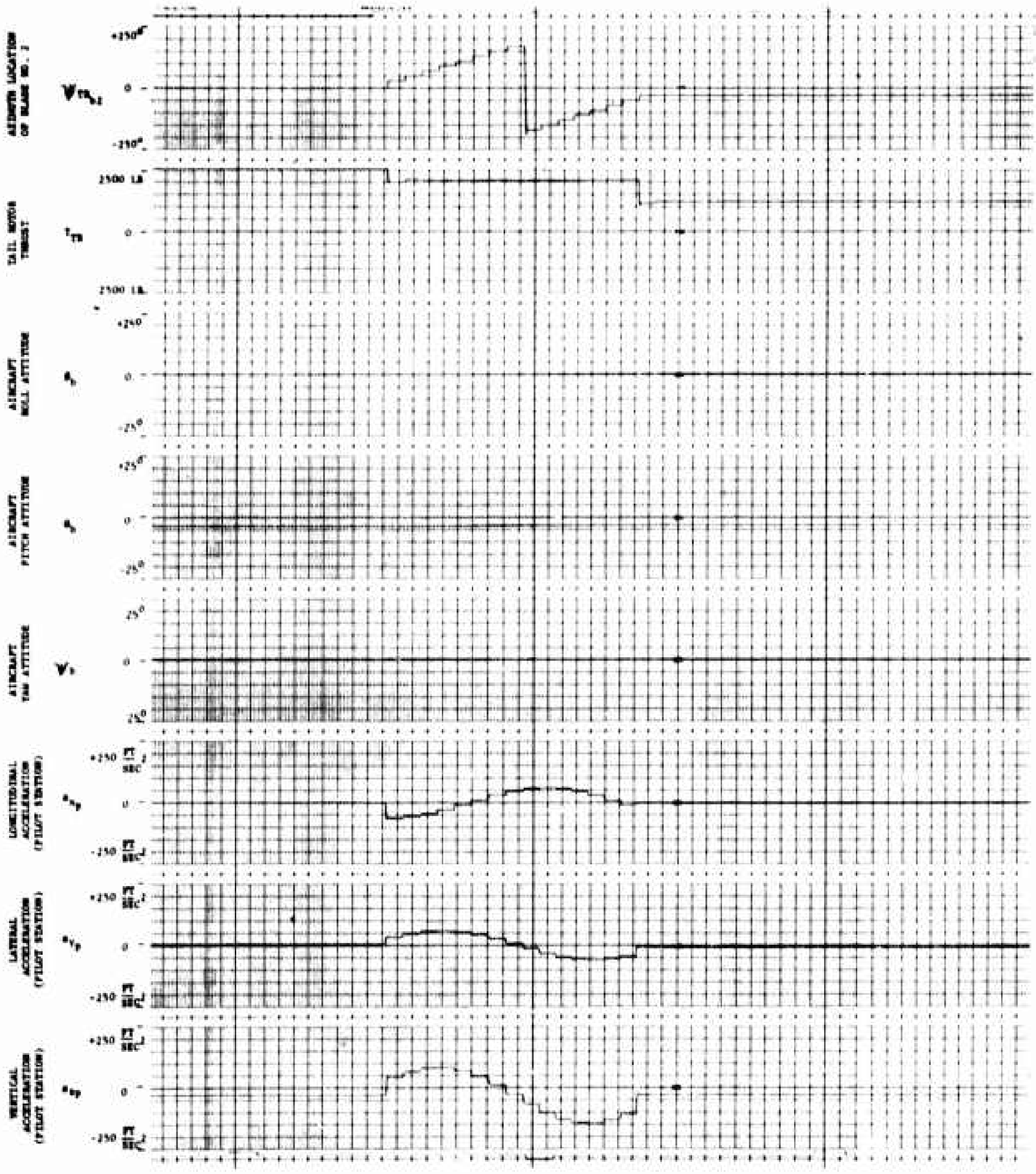
WEIGHT	19900.0	FSCG	347.0	Y	100.0	PSITR2	0.0
IX	5468.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40287.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-2	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	1.0	PASCNT	1223.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-1.0498320	A1S	-1.9940652	IHT	2.4679198	XA	43.438549
LNGSTK	5.5483266	B1S	6.6841092	IS	-3.0	XB	30.394605
COLSTK	19.647312	THETA0	19.647312	TH75MR	9.5673125	XC	57.295705
PEDAL	11.142235	THETTR	22.143010	TH75TR	8.6430108	XP	50.714502
XAIN	4.3438549	XBIN	3.0394605	XCIN	5.7295705	XPIN	2.7385162
XBACTP	31.265986	XBACTI	3.1265986	RSTR.	0.0	PSTR	0.0
VXB	168.95861	THETAB	0.91977100	AA0F	4.2184171	QSTR	0.0
VYB	12.142984	PHIB	0.0	AA1F	-0.74836538	RSTR	0.0
VZB	2.7126440	BETAWF	3.7694253	BB1F	0.25008155	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-5.3677839	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.26023933	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.78038881E-1	MHITR	0.0
ALFWF	-3.0646721	EKTX	1.1919474	EKWFX	0.92768840	LHITR	0.0
CHITPP	82.129878	EKTZ	1.0075477	EKWFZ	1.0078761	QHITR	0.0
EKTR	0.0	EPRWT	0.40789425	SIGWT	0.66693887	XITR	0.0
QWF	29.611737	KQHT	0.87177979	KQVT	0.83847251	YITR	0.0
MUXS	0.23309438	CTSIG	0.11361789	LTOT	-2.1218364	ZITR	0.0
MUYS	0.16762585E-1	CHSIG	0.79523682E-3	DTOT	24.337884	LITR	0.0
MUZS	-0.84670650E-2	COHSIG	0.91898559E-6	TTR	1023.8982	MITR	0.0
LAMBMR	-0.29105045E-1	NZ	1.0034610	HPMR	1453.5976	NITR	0.0
DWSHMR	0.20638779E-1	VC	0.17881393E-5	KTRBLK	1.0	AXP	0.38496639
XMR	881.45279	HBAR	136.05566	VXBDOT	-0.13622488	AYP	-0.18366821
YMR	-572.32470	JBAR	572.32470	VYBDOT	-0.72858371E-1	AZP	-32.319692
ZMR	-19417.656	TBAR	19438.685	VZBDOT	-0.11923620	VXP	168.95861
LMR	-6461.7279	LBARH	-1478.3987	PDOT	-0.64240089E-1	VYP	12.142984
MMR	2590.4241	MBARH	-1982.3948	QDOT	-0.21118615E-2	VZP	2.7126440
NMR	29201.600	QBAR	29610.322	RDOT	-0.20931114E-2	RSTR.	0.0
XWF	-695.96969	XT	41.082624	XTR	0.0	PSIDMG	-158.0
YWF	-293.96351	YT	-139.15789	YTR	962.22113	BTR	4.0
ZWF	110.07737	ZT	503.73477	ZTR	-358.22053	HADD	0.0
LWF	512.44532	LT	-387.22547	LTR	5909.9948	XADD	0.0
MWF	-6337.6183	MT	14898.347	MTR	-11236.241	YADD	0.0
NWF	-2301.0253	NT	4036.5537	NTR	-30871.268	ZADD	0.0
XHT	48.195748	XVT	-7.1131234	ALFHTT	-6.4087253	NADD	0.0
YHT	-2.1659858	YVT	-136.99191	ALFVTT	4.1470971	LADD	0.0
ZHT	502.62489	ZVT	1.1898814	AABB1F	0.78904469		

Figure D-4. (continued)



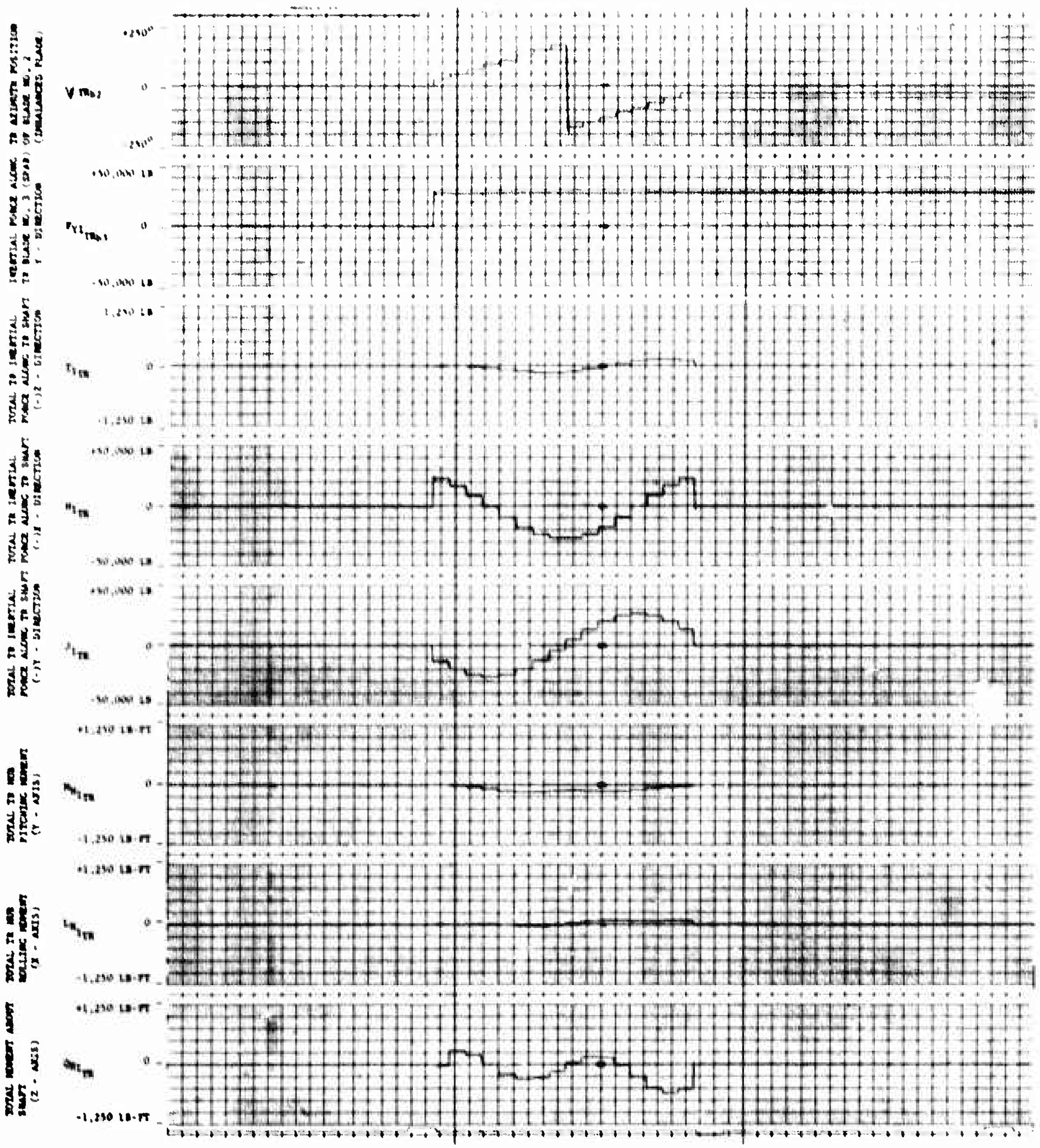
G.W.: 19,900 Lb. FSCG: 347 V: 150 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-5. Stepped Transition Time History



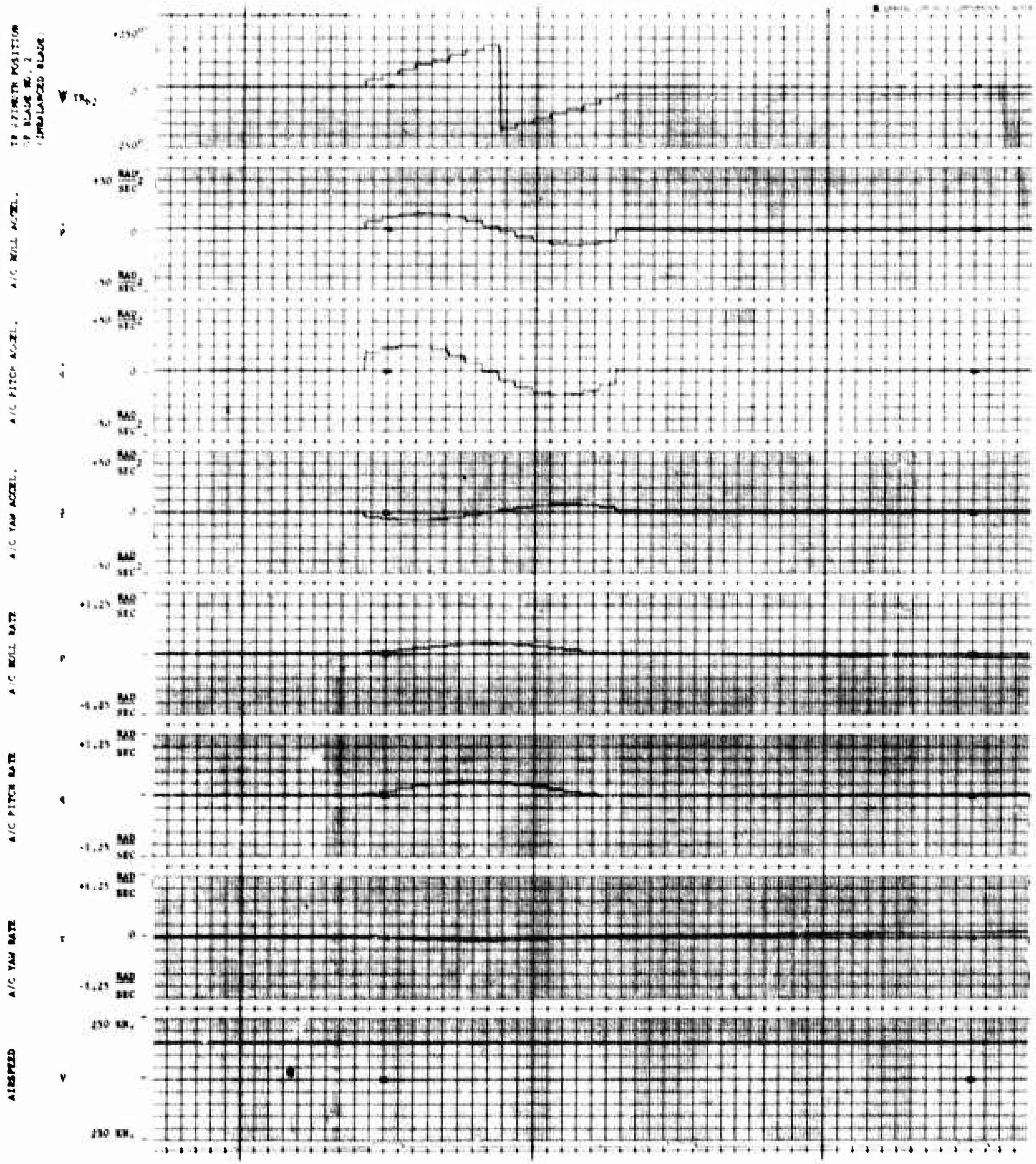
G.W.: 19,900 Lb. FSCG: 347 V: 150 Kts N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-5. (continued)



G.W.: 19,900 Lb.   FSCG: 347   V: 150 Kts N_R: 100%   SAS: OFF H_D: 10,000 Ft

Figure D-5. (continued)



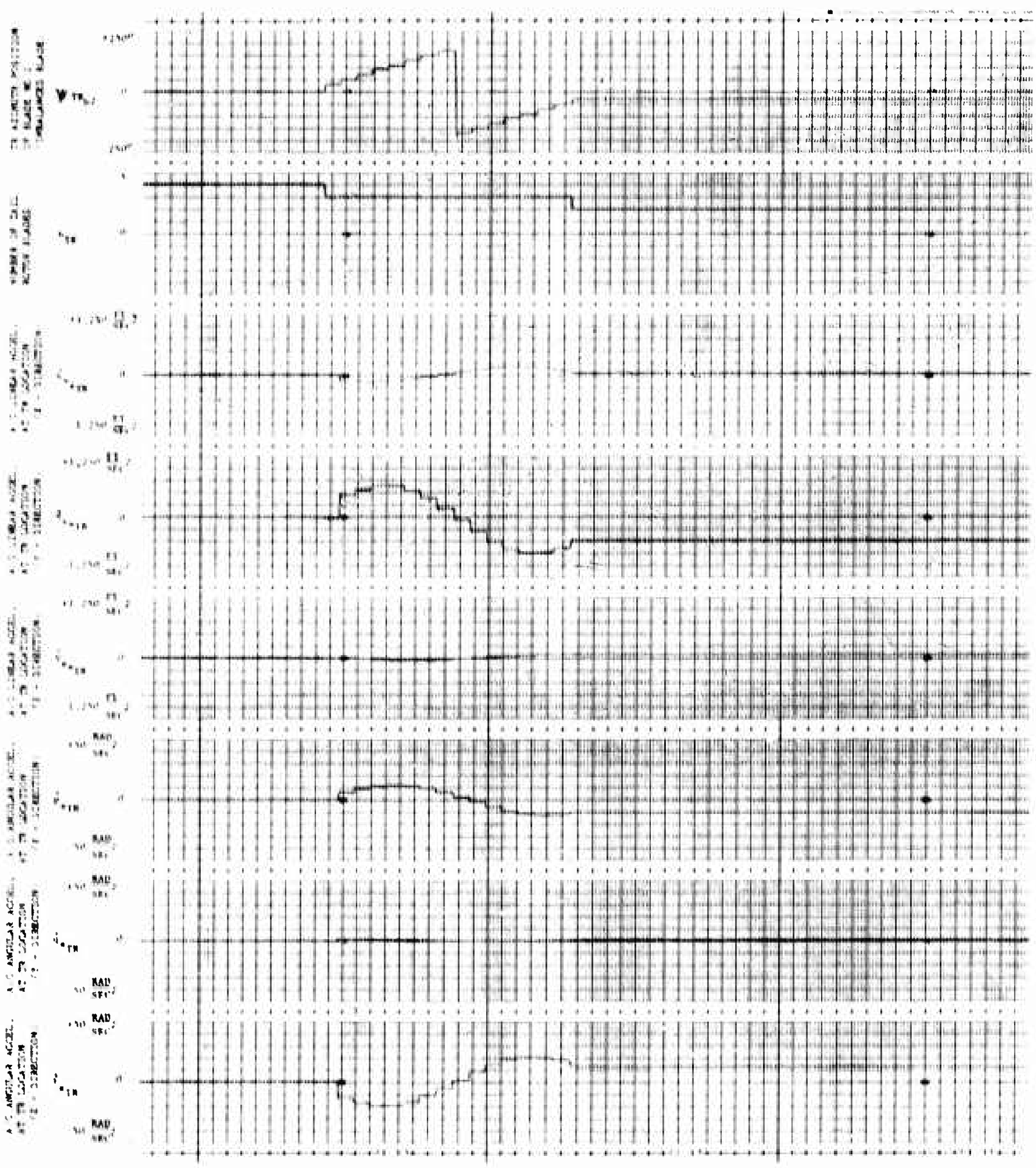
G.W.: 19,900 Lb. FSCG: 347 V: 150 Kts N_R: 100% SAS: OFF H_D 10,000 Ft

Figure D-5. (continued)

UTTAS(876) 1-21-77 1-DEC-77 RUN 20.

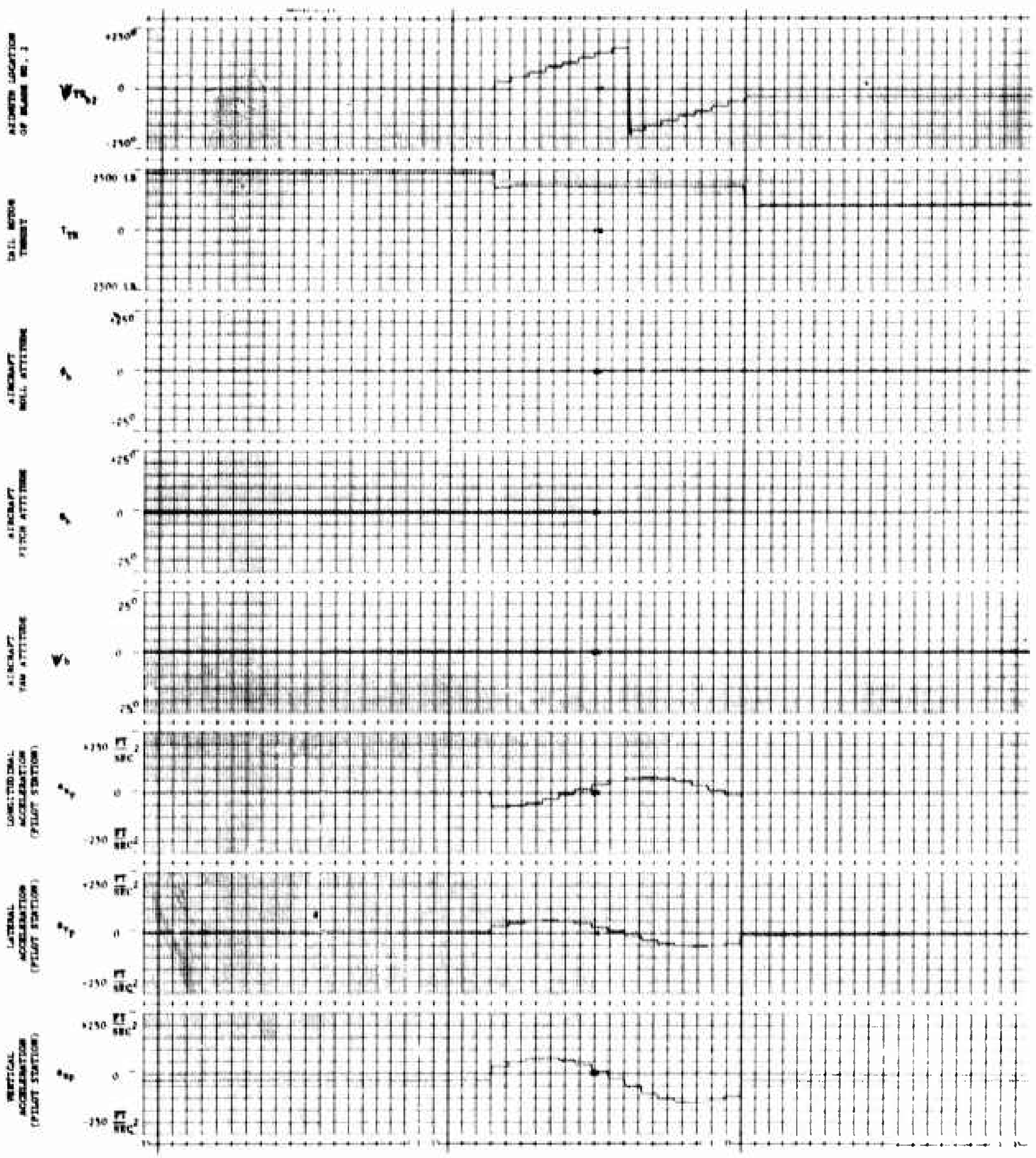
WEIGHT	19900.0	FSCG	347.0	V	150.0	PSITR2	0.0
IX	5460.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40207.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	THSTMR	-10.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	THSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	2436.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-3.7071491	A1S	-5.2772392	IHT	1.2451407	XA	26.330318
LNGSTK	10.056754	B1S	11.579040	IS	-3.0	XB	14.463766
COLSTK	24.946093	THETA0	24.946093	TH75MR	14.066093	XC	90.410007
PEDAL	14.977616	THETTR	32.337000	TH75TR	10.037000	XP	40.002013
XAIN	2.6330318	XBIN	1.4463766	XCIN	9.0410006	XPIN	2.1643724
XBACTP	10.120230	XBACTI	1.0120230	RSTR.	0.0	PSTR	0.0
VXB	253.00103	THETAB	-3.2199956	AA0F	4.1560140	QSTR	0.0
VYB	10.231067	PHIB	0.0	AA1F	0.22197625	RSTR	0.0
VZB	-14.238920	BETAWF	3.9561401	BB1F	-0.58273477E-2	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-13.513620	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.62206605	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.30700367	MHITR	0.0
ALFWF	-5.3100614	EKTX	1.1024650	EKWFX	0.92259999	LHITR	0.0
CHITPP	81.730462	EKTZ	1.0535006	EKWFZ	1.0002615	QHITR	0.0
EKTR	0.0	EPSHT	0.40956147	SIGWT	0.69620209	XITR	0.0
QWF	61.260701	KQHT	0.07177979	KQVT	0.02966910	YITR	0.0
MUXS	0.34702009	CTSIG	0.11507409	LTOT	-3.9277192	ZITR	0.0
MUYS	0.25167005E-1	CHSIG	0.44973043E-2	DTOT	24.465612	LITR	0.0
MUZS	-0.37911099E-1	CQMSIG	0.90556532E-6	TTR	2501.0770	MITR	0.0
LAMBMR	-0.51052003E-1	NZ	0.99723107	HPMR	3540.0799	NITR	0.0
DWSMMR	0.13940903E-1	VC	0.14305114E-4	KTRBLK	1.0	AXP	-1.0260406
XMR	262.03552	HBAR	769.43506	VXBDOT	-0.11547161E-1	AYP	-0.46655021E-1
YMR	-1421.2821	JBAR	1421.2821	VYBDOT	-0.28926902E-1	AZP	-32.073105
ZMR	-19699.718	TBAR	19607.961	VZBDOT	0.35909138E-1	VXP	253.00103
LMR	-14901.910	LBARH	-2670.0490	PDOT	-0.14362093E-1	VYP	10.231067
MMR	9404.4606	MBARH	1050.9494	QDOT	0.49501273E-2	VZP	-14.238920
NMR	71331.400	QBAR	72292.0	RDOT	-0.24344998E-2	RSTR.	0.0
XWF	-1430.1205	XT	89.074630	XTR	0.0	PSIOMG	-150.0
YWF	-635.44679	YT	-311.60367	YTR	2351.1709	BTR	4.0
ZWF	374.78674	ZT	1145.5279	ZTR	-855.75791	MADD	0.0
LWF	1156.0509	LT	-600.11705	LTR	14440.971	XADD	0.0
MWF	-15625.184	MT	33875.715	MTR	-27455.566	YADD	0.0
NWF	-4997.0078	NT	9030.6650	NTR	-75433.401	ZADD	0.0
XHT	105.20601	XVT	-16.212179	ALFHTT	-7.3464930	NADD	0.0
YHT	-4.7962019	YVT	-306.00739	ALFVTT	4.1151900	LADD	0.0
ZHT	1143.0705	ZVT	2.4493062	AA0B1F	0.22205272		

Figure D-5. (continued)



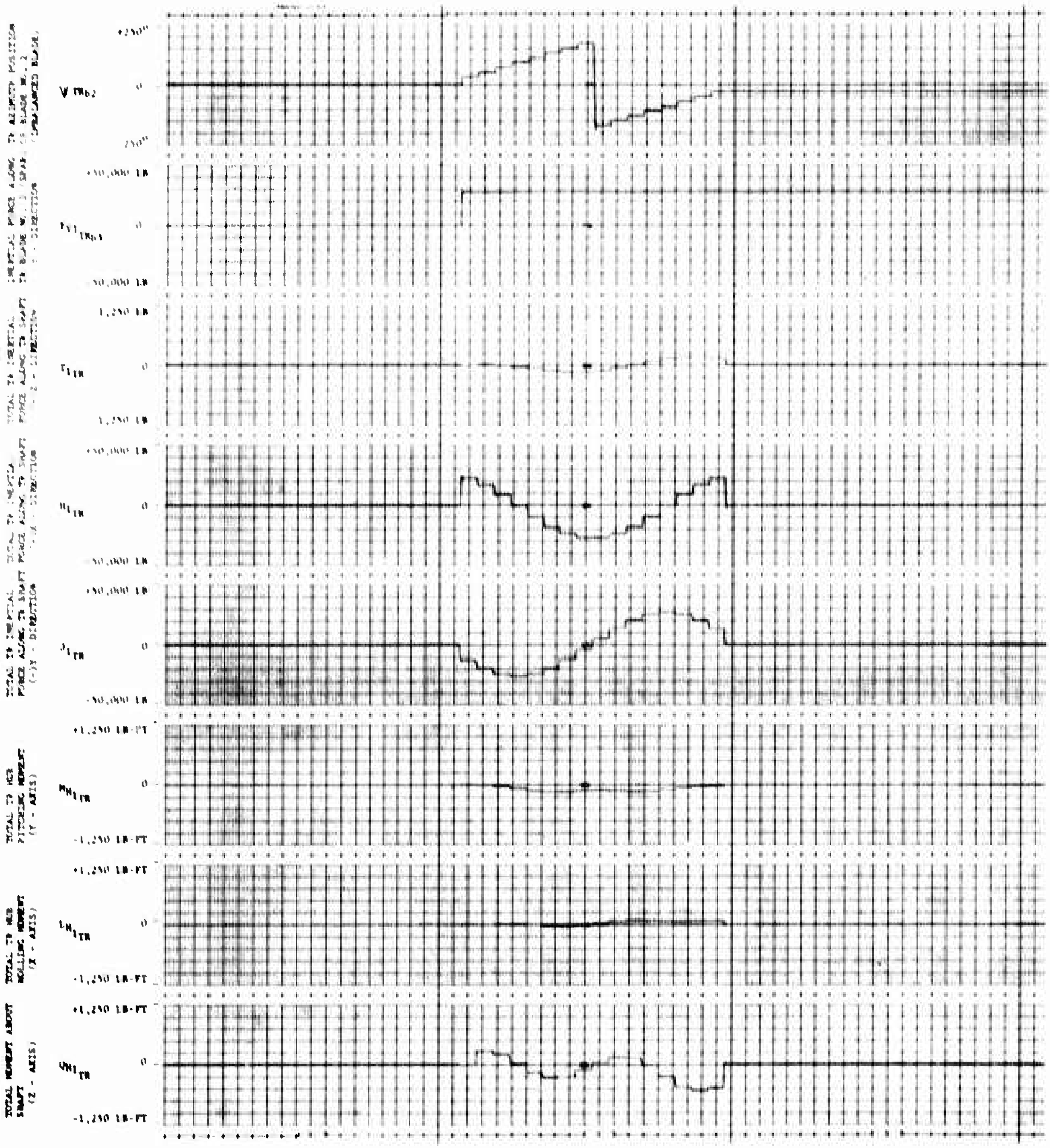
G.W.: 19,900 Lb. FSCG: 360.2 V: 150 Kts N_R; 100% SAS: ON H_D: 10,000 Ft

Figure D-6. Stepped Transition Time History



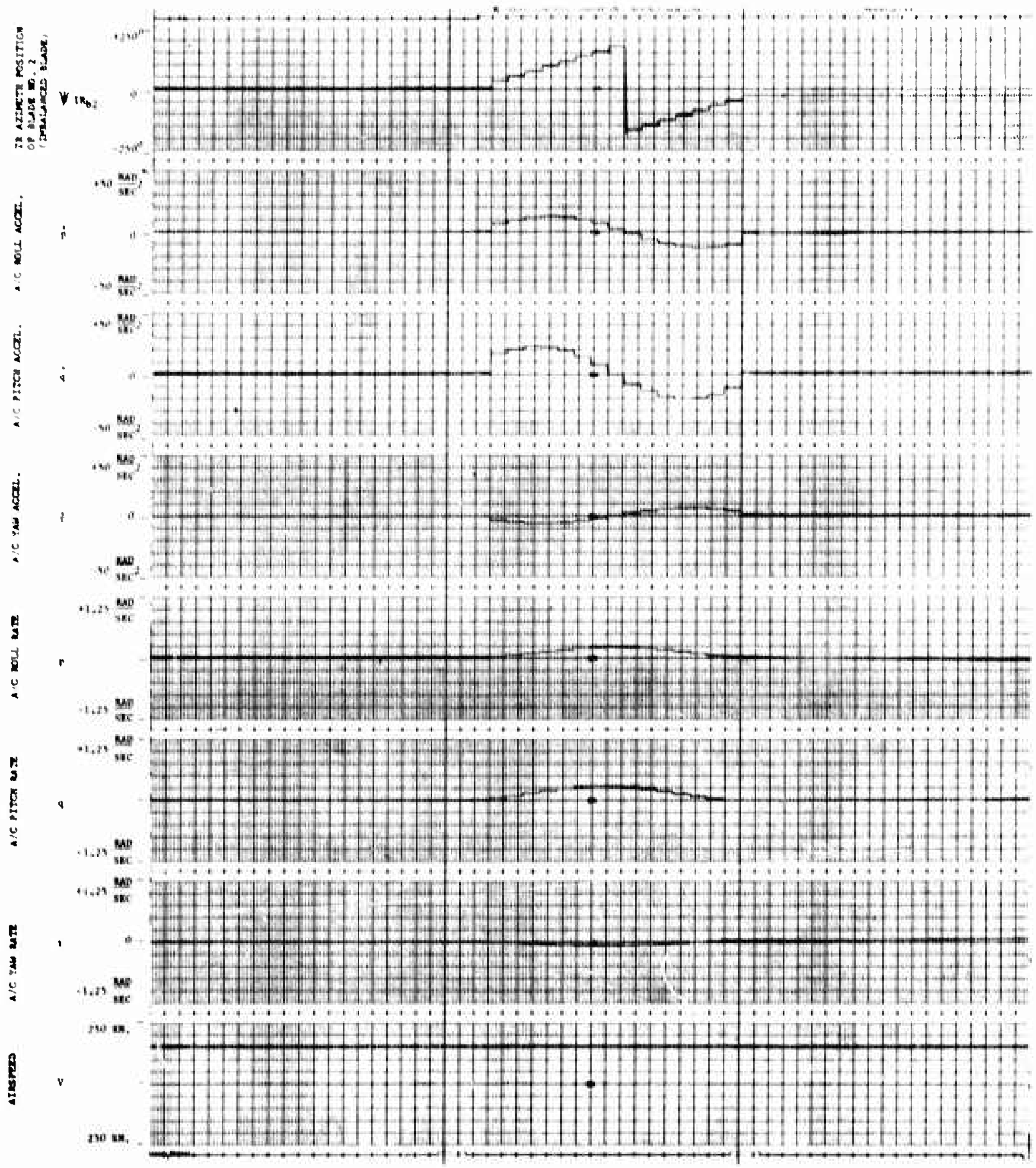
G.W.: 19,900 Lb. FSCG: 360.2 V: 150 Kts N_R: 100% SAS: ON H_D: 10,000 Ft

Figure D-6. (continued)



G.W.: 19,900 Lb. FSCG: 360.2 V: 150 Kts N_R: 100% SAS: ON H_D: 10,000 Ft

Figure D-6. (continued)



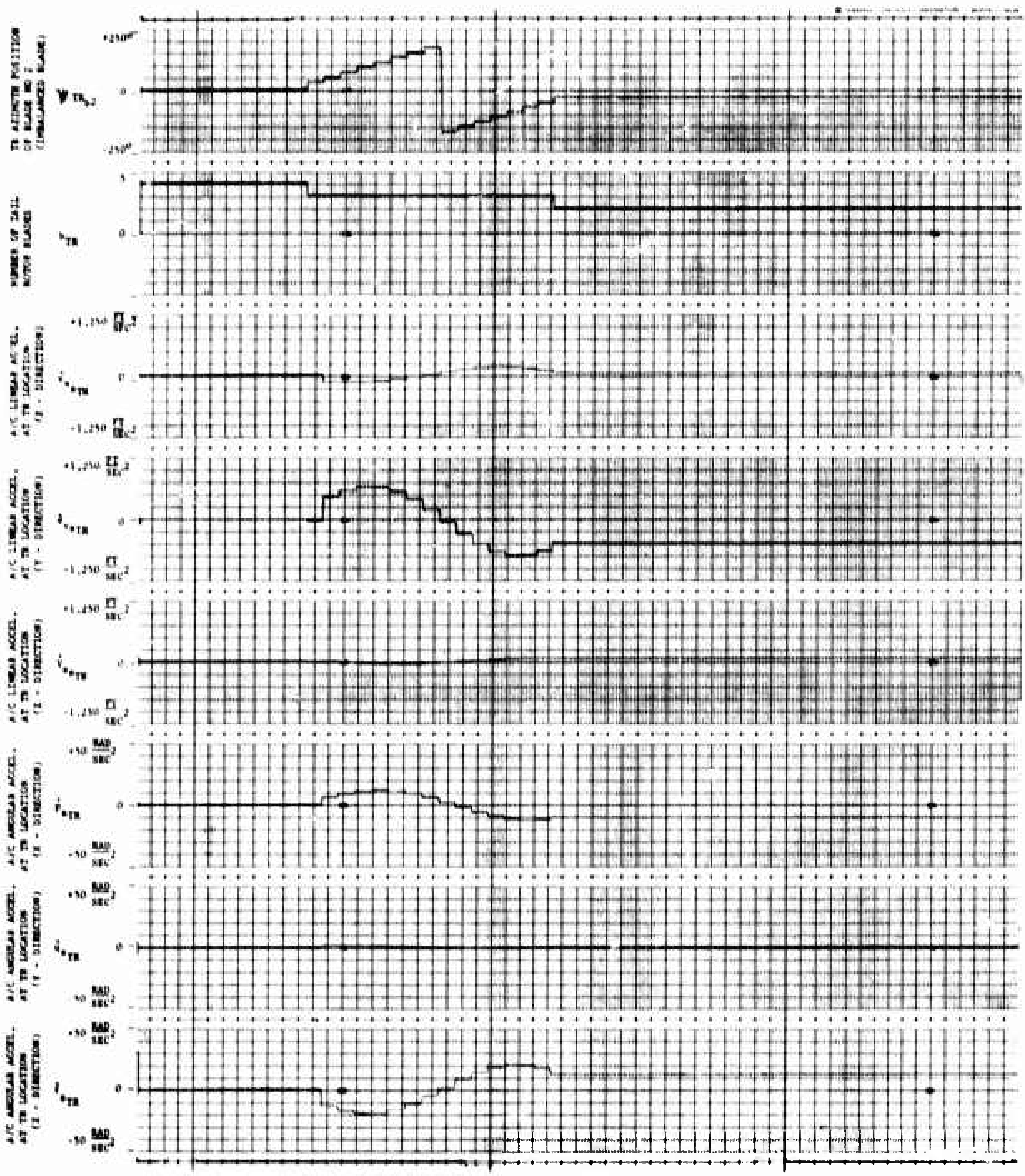
G.W.: 19,900 Lb. FSCG: 360.2 V: 150 Kts N_R: 100% SAS: ON H_D: 10,000 Ft

Figure D-6. (continued)

UTTAS(876)   1-21-77   7-DEC-77   RUN 13.

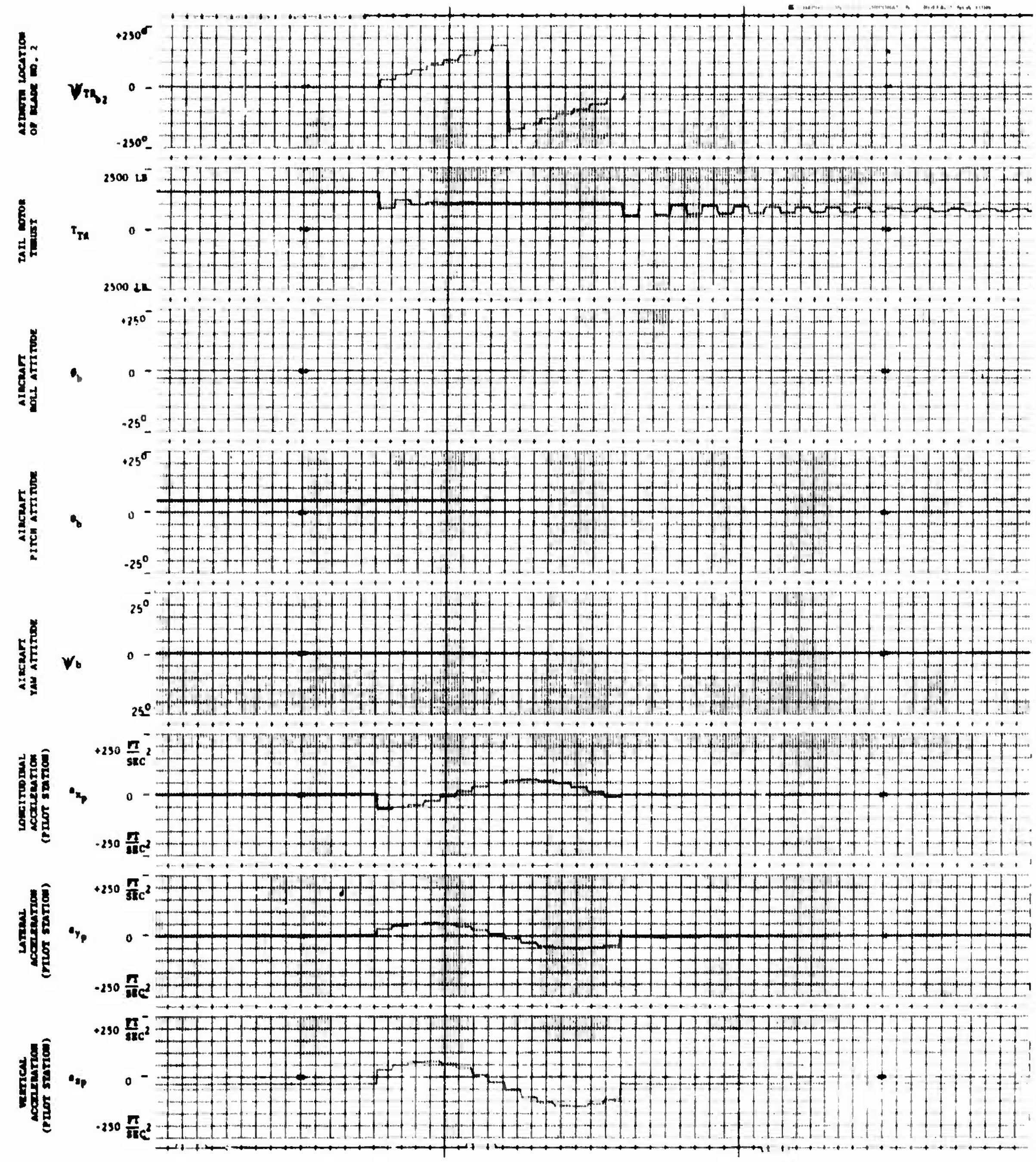
WEIGHT	19900.0	FSCG	360.20000	V	150.0	PSITR2	0.0
IX	5460.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40287.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.55000	NSBB	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.[illegible]	PASCNT	2163.0	WLHT	234.0	FSVT	695.0
FSHT	78[illegible]0000	SHT	45.0	SVT	32.300000	OSTR.	0.0
LATSTK	-3.2616592	A1S	-4.6536977	IHT	0.48978681	XA	29.614630
LNGSTK	12.389178	B1S	14.058177	IS	-3.0	XB	6.2219844
COLSTK	23.994937	THETAB	23.994937	TH75MR	13.914937	XC	84.460359
PEDAL	13.462816	THETTR	29.680741	TH75TR	16.188741	XP	44.281391
XAIN	2.9614630	XBIN	0.62219844	XCIN	0.4460359	XPIN	2.3911329
XBACTP	3.0481503	XBACTI	0.30481503	RSTR.	0.0	PSTR	0.0
VXB	253.49214	THETAB	-0.11624517	AA0F	4.0582146	QSTR	0.0
VYB	18.554529	PHIB	0.0	AA1F	-3.5159848	RSTR	0.0
VZB	-0.51425602	BETAWF	4.0384683	BB1F	-0.20600928	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-11.633179	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.68384245	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.18593356	MHITR	0.0
ALFWF	-2.2789382	EKTX	1.3658546	EKWFX	0.91480285	LHITR	0.0
CHITPP	81.144775	EKTZ	1.7418915	EKWFZ	1.0888552	QHITR	0.0
EKTR	0.0	EPSWT	0.49838468	SIGWT	0.71877846	XITR	0.0
QWF	60.986828	KOMT	0.87177979	KOVT	0.82927212	YITR	0.0
MUXS	0.34938521	CTSIG	0.11199662	LTOT	-0.11933851	ZITR	0.0
MUYS	0.25613297E-1	CMSIG	-0.22562351E-2	DTOT	24.387693	LITR	0.0
MUZS	-0.19822189E-1	CQMSIG	0.88488535E-6	TTR	2285.3241	MITR	0.0
LAMBMR	-0.32642178E-1	NZ	1.0089708	HPMR	3108.9815	NITR	0.0
DWSHMR	0.13619981E-1	VC	0.89486967E-6	KTRBLK	1.0	AXP	-0.88869715E-1
XMR	1388.2511	HBAR	-386.81527	VXBDOT	-0.29649681E-1	AYP	-0.82419863E-1
YMR	-1135.7785	JBAR	1135.7785	VYBDOT	-0.35528698E-1	AZP	-32.225084
ZMR	-19113.355	TBAR	19161.385	VZBDOT	-0.32233896E-1	VXP	253.49214
LMR	-13247.785	LBARM	-3119.5838	PDOT	-0.27689234E-1	VYP	18.554529
MMR	13818.403	MBARM	-9805.6962	QDOT	-0.33457218E-2	VZP	-0.51425602
NMR	61199.689	QBAR	63329.476	RDOT	-0.16498647E-2	RSTR.	0.0
XWF	-1442.2283	XT	-2.3355596	XTR	0.0	PSIDMG	-50.0
YWF	-644.44657	YT	-313.32935	YTR	2872.4809	BTR	4.0
ZWF	64.783925	ZT	696.36215	ZTR	-754.32283	MADD	0.0
LWF	1067.7641	LT	-696.02751	LTR	12729.248	XADD	0.0
MWF	-10364.225	MT	19798.468	MTR	-23371.435	YADD	0.0
NWF	-5729.8571	NT	8743.3868	NTR	-64212.367	ZADD	0.0
XHT	13.517461	XVT	-15.853828	ALFHTT	-4.4348439	NADD	0.0
YHT	-3.3152666	YVT	-318.01408	ALFVTT	4.1915888	LADD	0.0
ZHT	695.01844	ZVT	1.3437888	AABB1F	3.5228196		

Figure D-6. (continued)



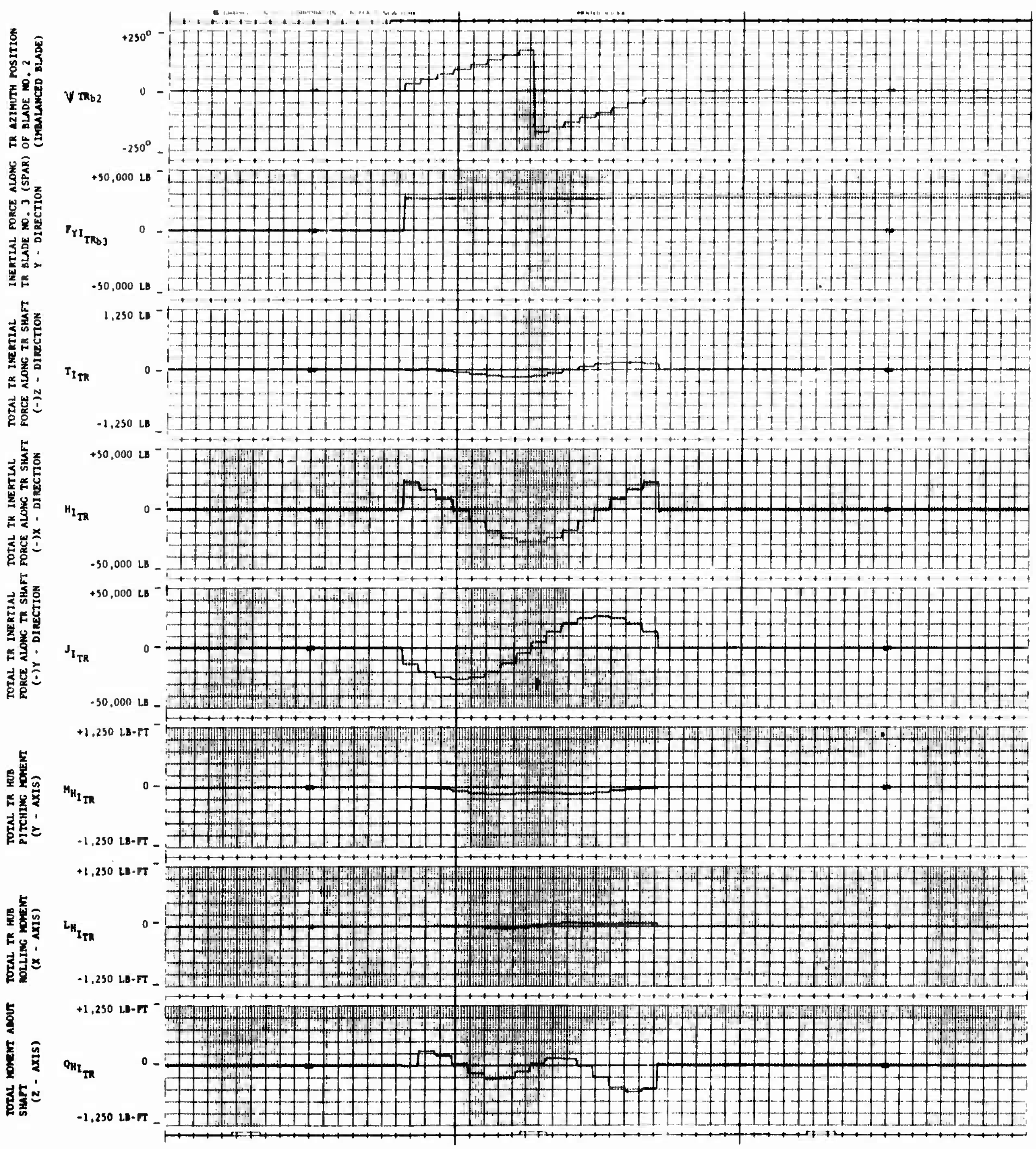
G.W.: 19,900 Lb.   FSCG: 360.2   V: Hover N_R: 100%   SAS: OFF H_D: 10,000 Ft

Figure D-7. Stepped Transition Time History



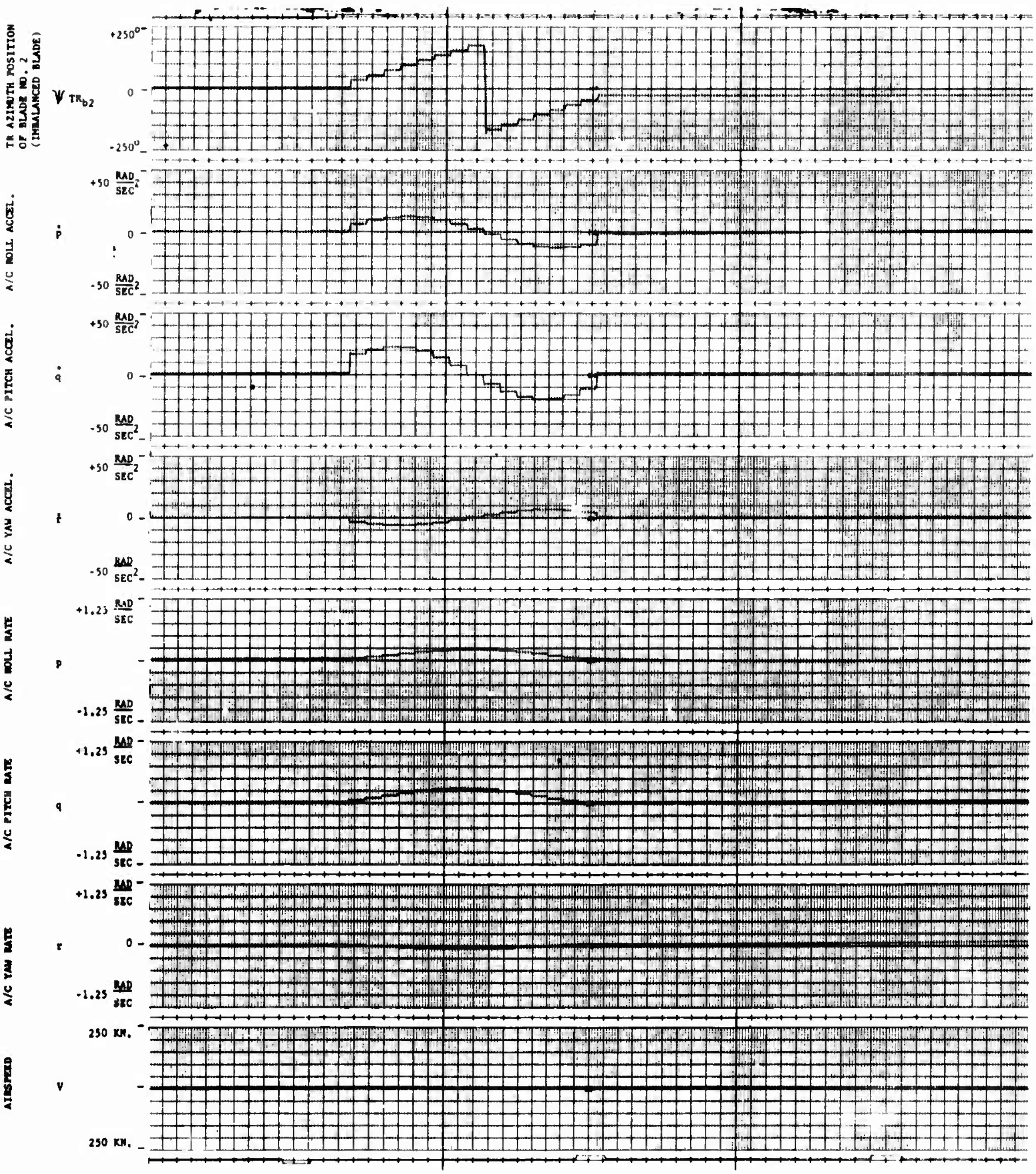
G.W.: 19,900 Lb. FSCG: 360.2 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-7. (continued)



G.W.: 19,900 Lb. FSCG: 360.2 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-7. (continued)



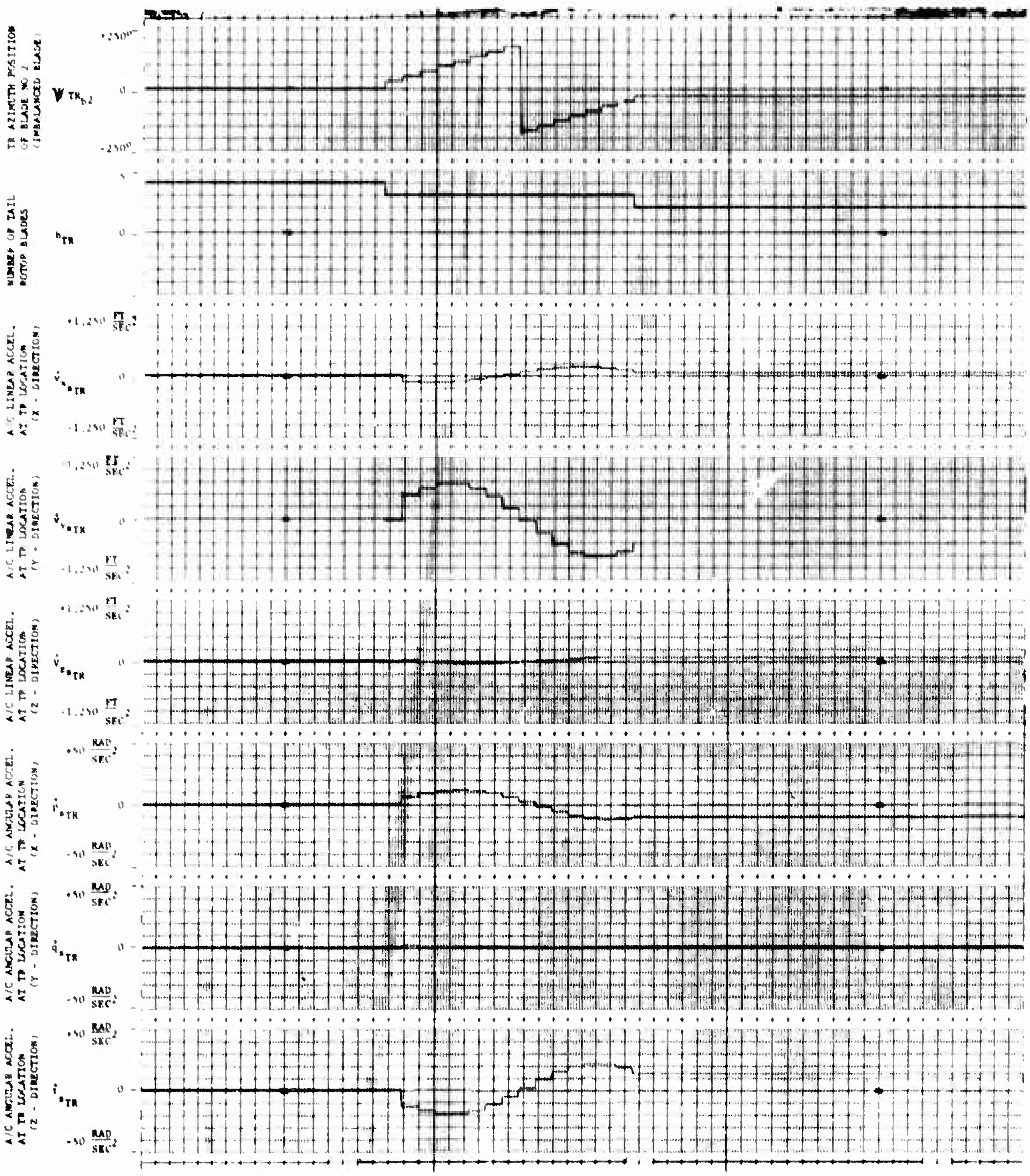
G.W.: 19,900 Lb. FSCG: 360.2 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-7. (continued)

UTTAS(S76)   1-21-77   7-DEC-77   RUN 14.

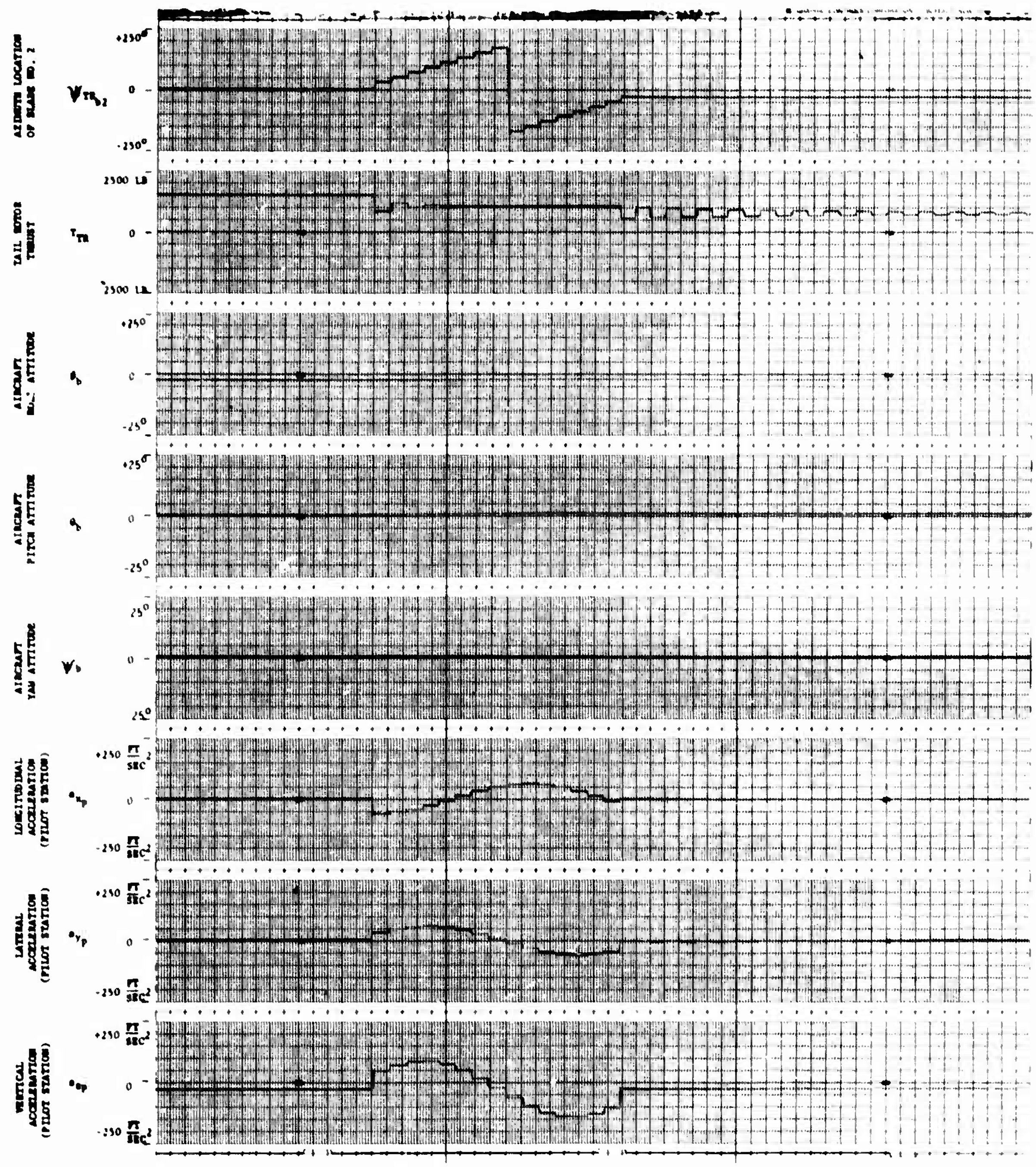
WEIGHT	19900.0	FSCG	360.20000	V	1.0E-2	PSITR2	0.0
IX	5460.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40207.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	30224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	2552.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.26194274	A1S	-1.3623362	IHT	33.263464	XA	40.362857
LNGSTK	2.9400136	B1S	1.5857925	IS	-3.0	XB	39.600431
COLSTK	21.163431	THETAB	21.163431	TH75MR	11.083431	XC	66.771450
PEDAL	21.355629	THETTR	34.175747	TH75TR	20.675747	XP	22.400671
XAIN	4.8362857	XBIN	3.9600431	XCIN	6.6771450	XPIN	1.2096847
XBACTP	46.394391	XBACTI	4.6394391	RSTR.	0.0	PSTR	0.0
VXB	0.16835313E-1	THETAB	4.9630512	AA0F	4.3260982	QSTR	0.0
VYB	0.0	PHIB	-3.0507550	AA1F	-1.7359206	RSTR	0.0
VZB	0.14620205E-2	BETAWF	0.0	BB1F	-1.4543821	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-0.1493685	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.31872219E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.16565383	MHITR	0.0
ALFWF	-13.121827	EKTX	-0.28429196	EKWFX	0.79995393E-5	LHITR	0.0
CHITPP	-1.7118856	EKTZ	0.24672561	EKWFZ	0.11899360E-3	QHITR	0.0
EKTR	0.0	EPSHT	0.44999999	SIGHT	0.0	XITR	0.0
QWF	0.27402292E-6	KQHT	0.87177979	KQVT	0.84852813	YITR	0.0
MUXS	0.23312002E-4	CTSIG	0.10835051	LTOT	-20.492385	ZITR	0.0
MUYS	0.0	CMSIG	-0.39635926E-2	DTOT	26.570964	LITR	0.0
MUZS	0.79984720E-6	COMSIG	0.94244401E-6	TTR	1508.1092	MITR	0.0
LAMBMR	-0.68135195E-1	NZ	0.99467980	HPMR	2201.8577	NITR	0.0
DWSHMR	0.68135993E-1	VC	0.13060751E-3	KTRBLK	0.79599999	AXP	2.7845867
XMR	1647.3620	MBAR	-678.12406	VXBDOT	0.10626064E-2	AYP	1.7046685
YMR	-405.58052	JBAR	405.58052	VYBDOT	-0.46308191E-3	AZP	-32.003164
ZMR	-18476.530	TBAR	18530.866	VZBDOT	0.11604696E-3	VXP	0.16835313E-1
LMR	-8706.5980	LBARH	-3930.1350	PDOT	-0.31024281E-3	VYP	0.0
MMR	15806.750	MBARH	-4802.6326	QDOT	-0.82030573E-4	VZP	0.14620205E-2
NMR	43912.530	QBAR	44852.659	RDOT	0.63513940E-5	RSTR.	0.0
XWF	-0.58331269E-5	XT	4.5730998	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-0.35024303E-6	YTR	1417.2645	BTR	4.0
ZWF	0.71424980E-5	ZT	5.9241120	ZTR	-515.84310	MADD	0.0
LWF	0.0	LT	-0.79096733E-6	LTR	8704.8869	XADD	0.0
MWF	-0.14298938E-3	MT	172.48356	MTR	-15982.530	YADD	0.0
NWF	0.0	NT	0.97710030E-5	NTR	-43911.579	ZADD	0.0
XHT	4.5730999	XVT	-0.79313945E-7	ALFHTT	-7.7194499	NADD	0.0
YHT	0.0	YVT	-0.35024303E-6	ALFVTT	0.0	LADD	0.0
ZHT	5.9241119	ZVT	0.68905390E-7	AABB1F	2.2646518		

Figure D-7. (continued)



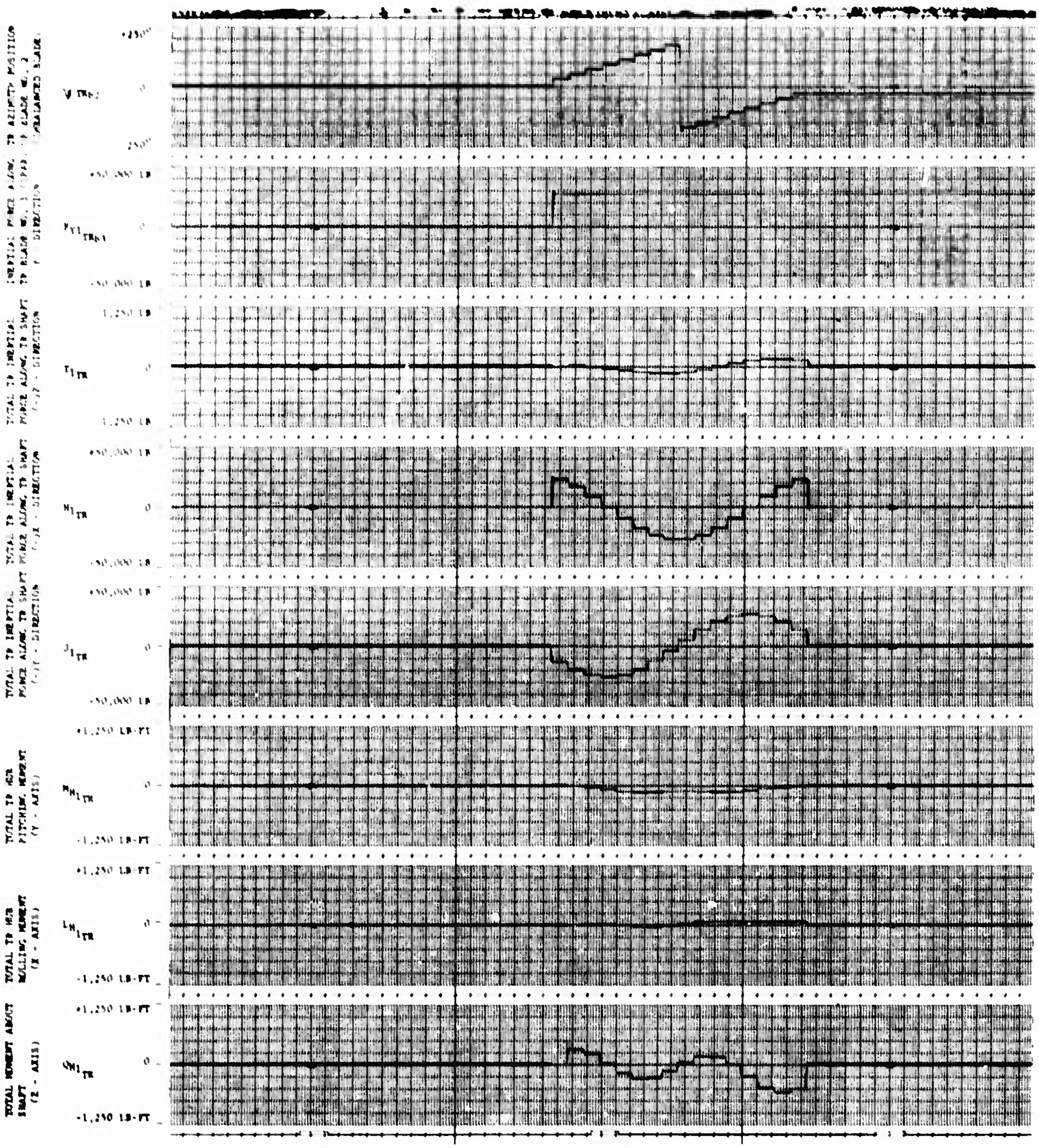
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-8. Stepped Transition Time History



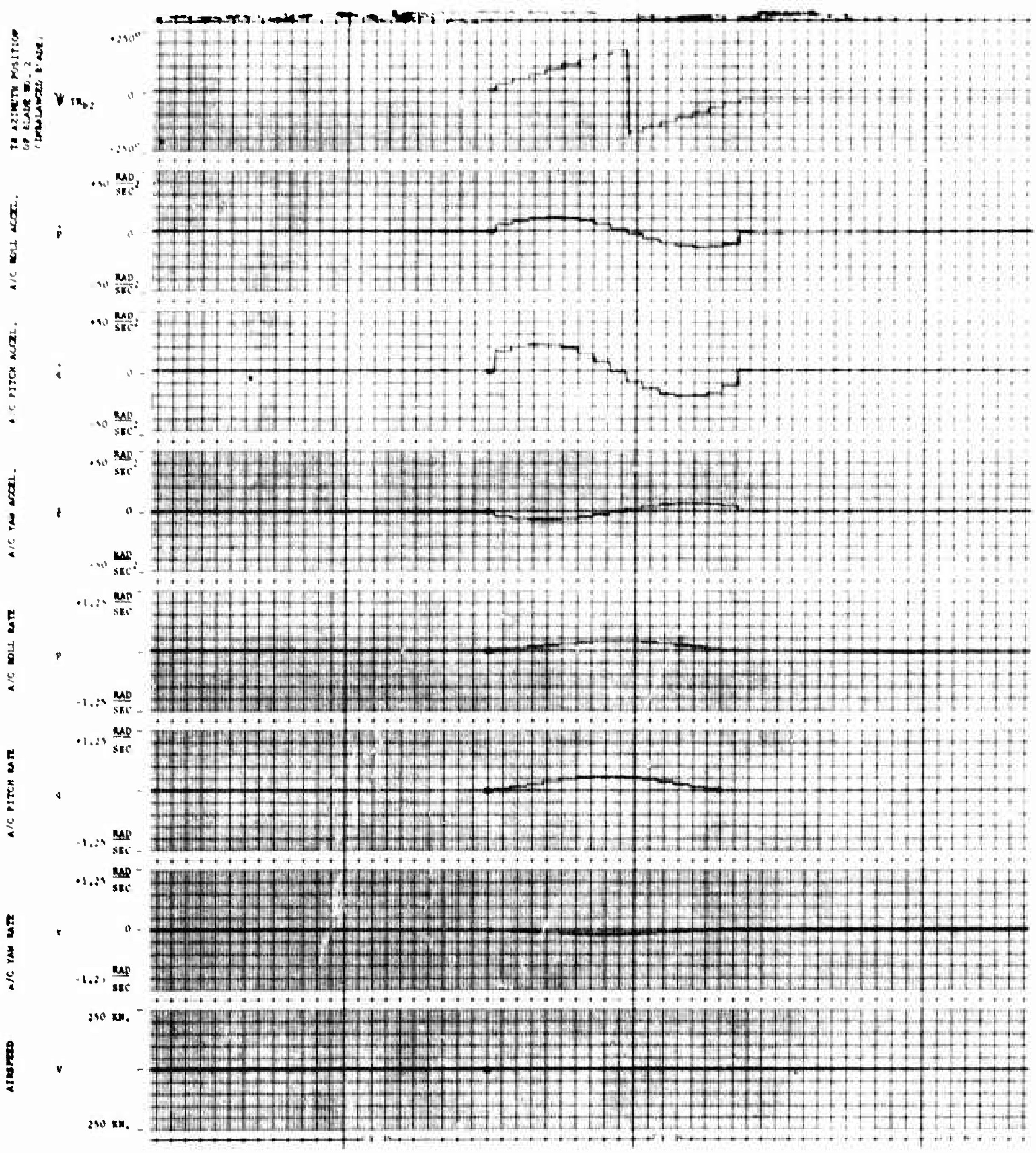
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-8. (continued)



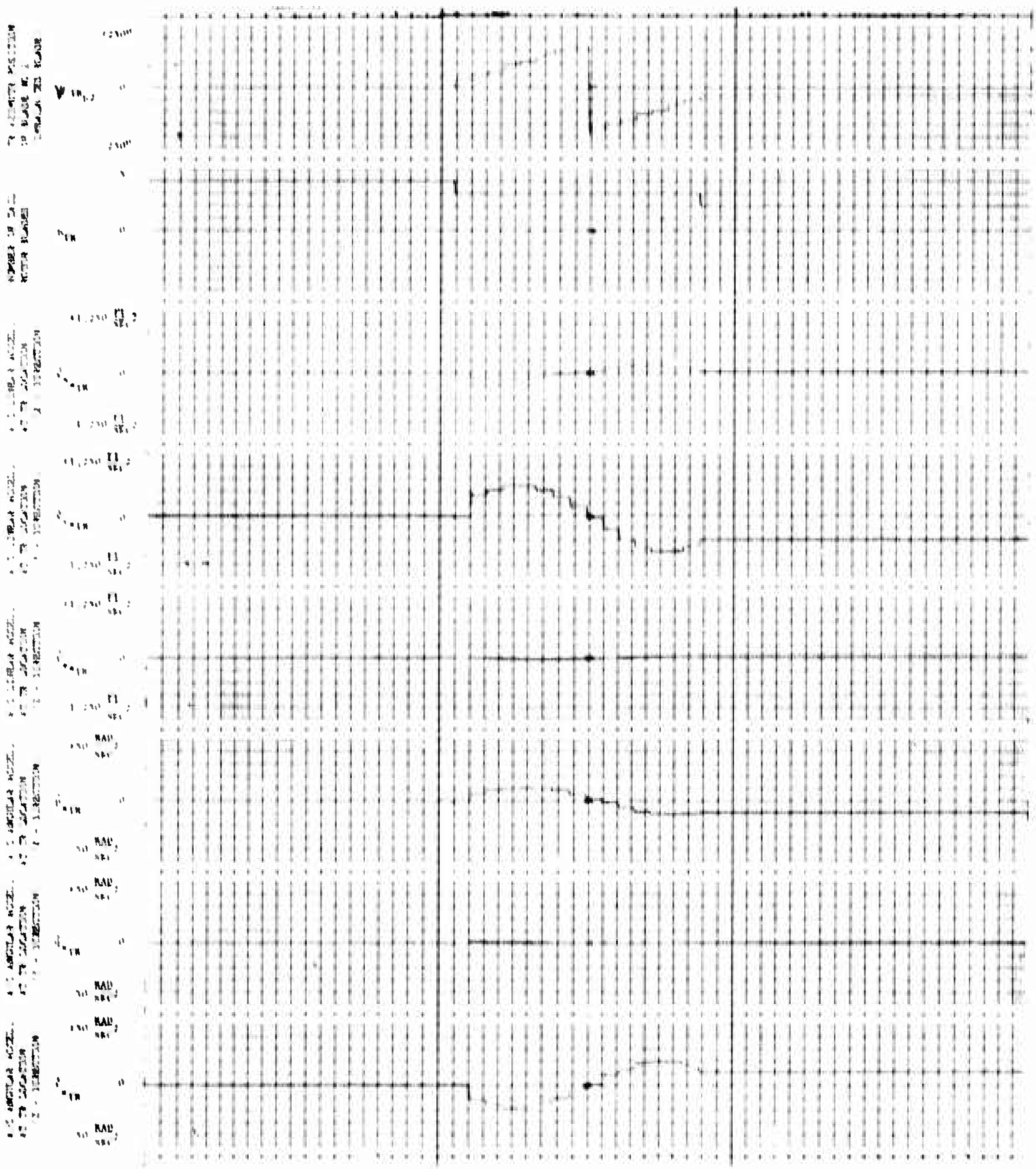
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-8. (continued)



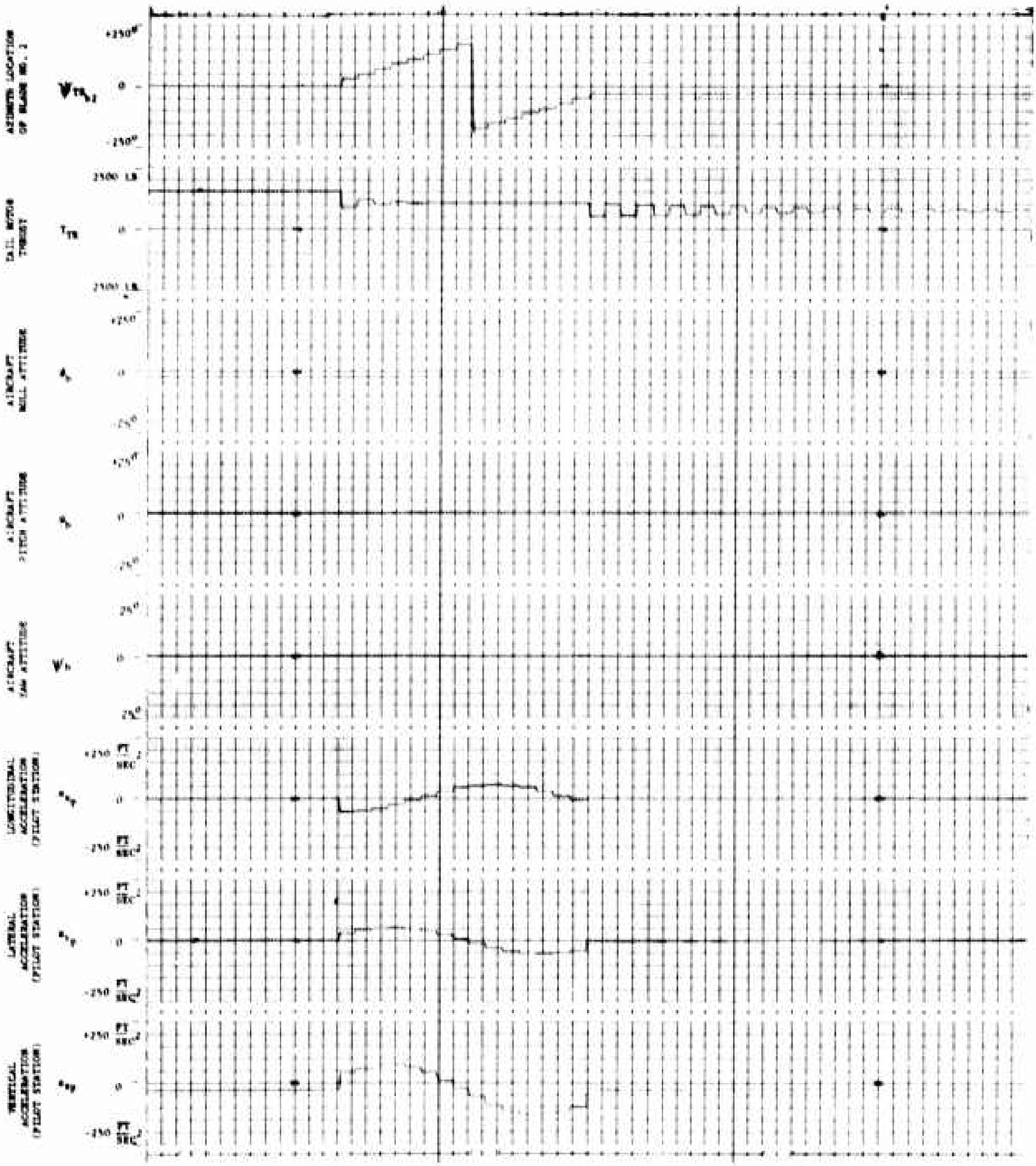
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-8. (continued)



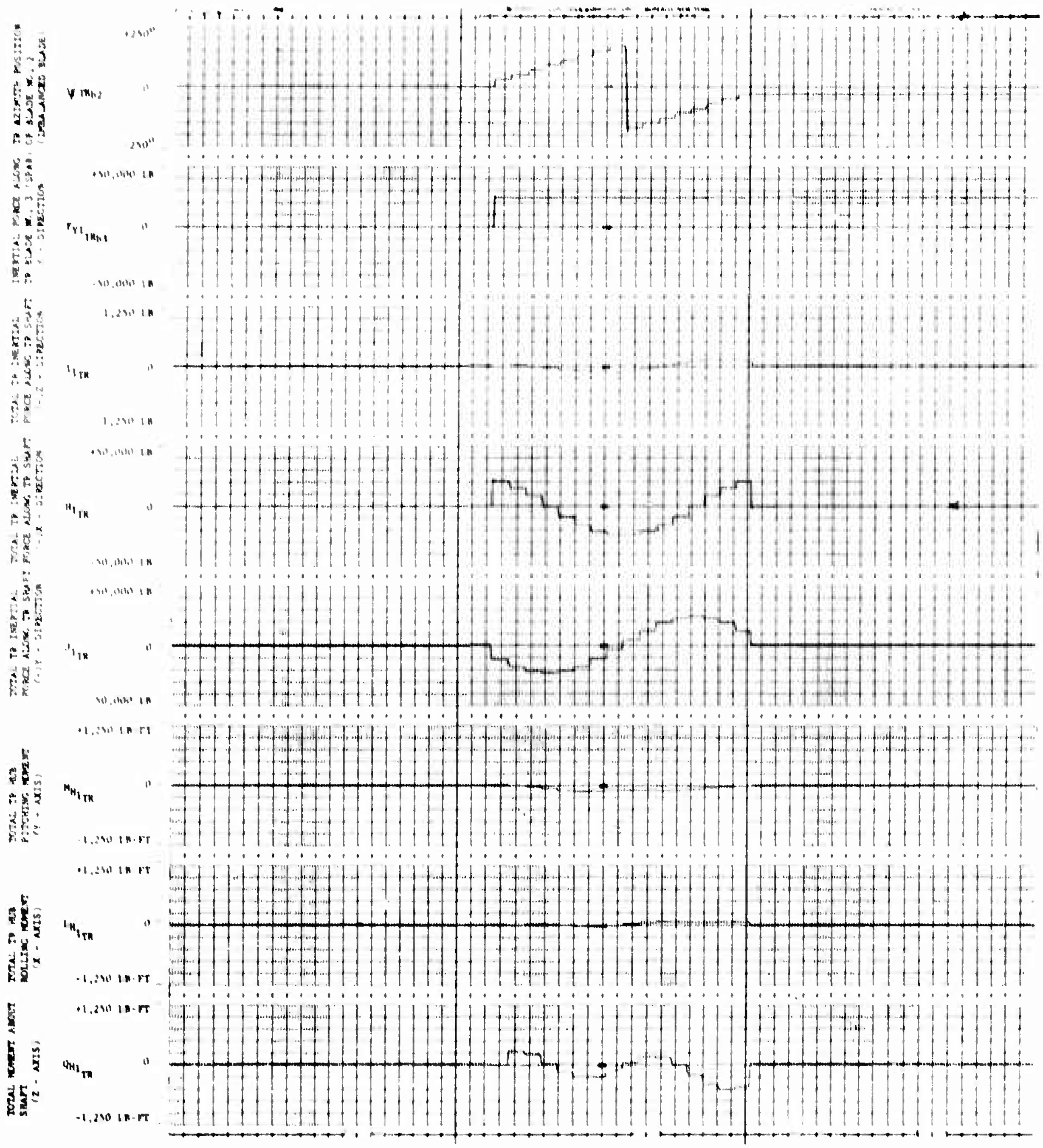
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 95% SAS: OFF H_D: 10,000 Ft

Figure D-9. Stepped Transition Time History



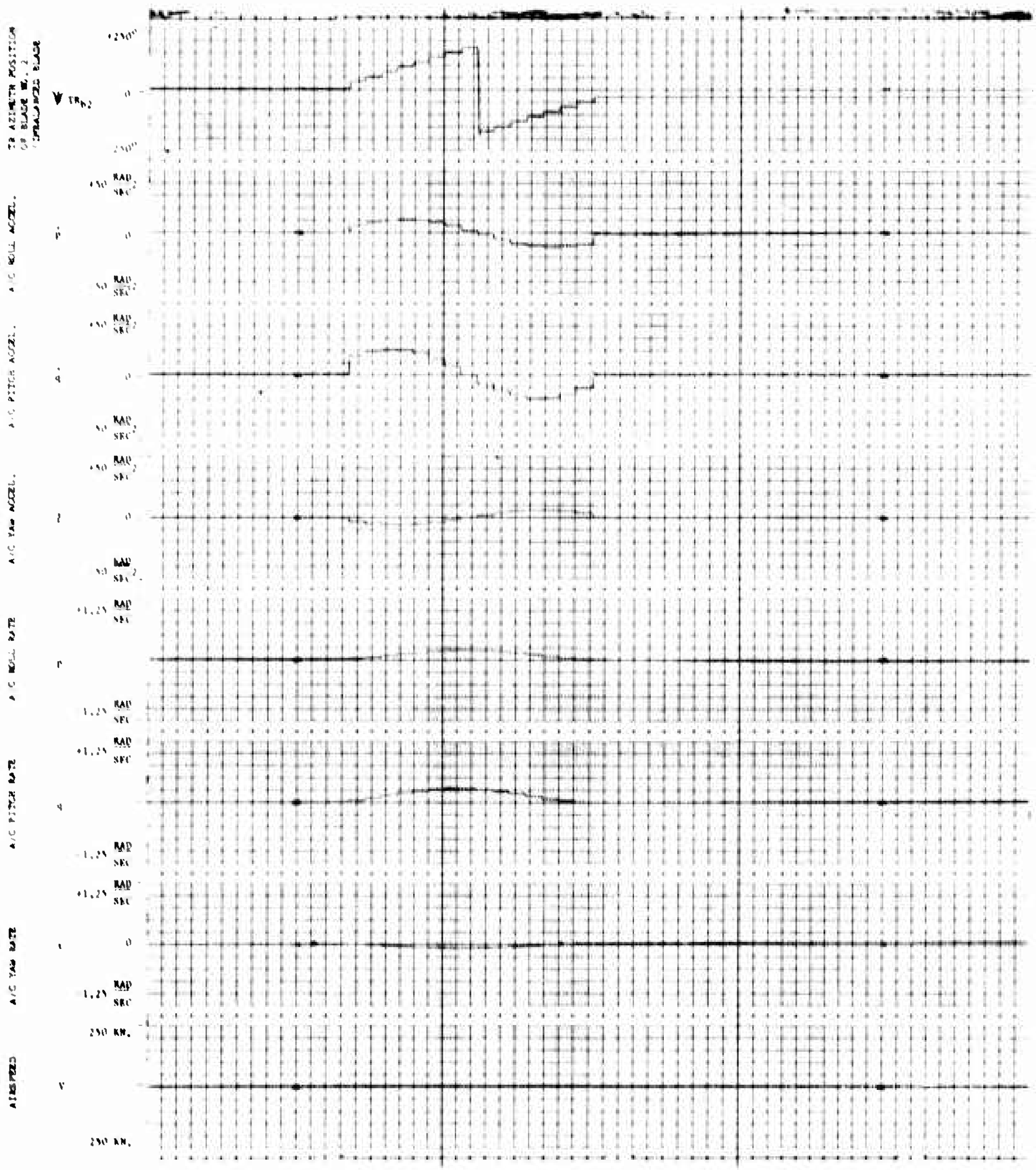
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 95% SAS: OFF H_D: 10,000 Ft

Figure D-9. (continued)



G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 95% SAS: OFF H_D: 10,000 Ft

Figure D-9. (continued)



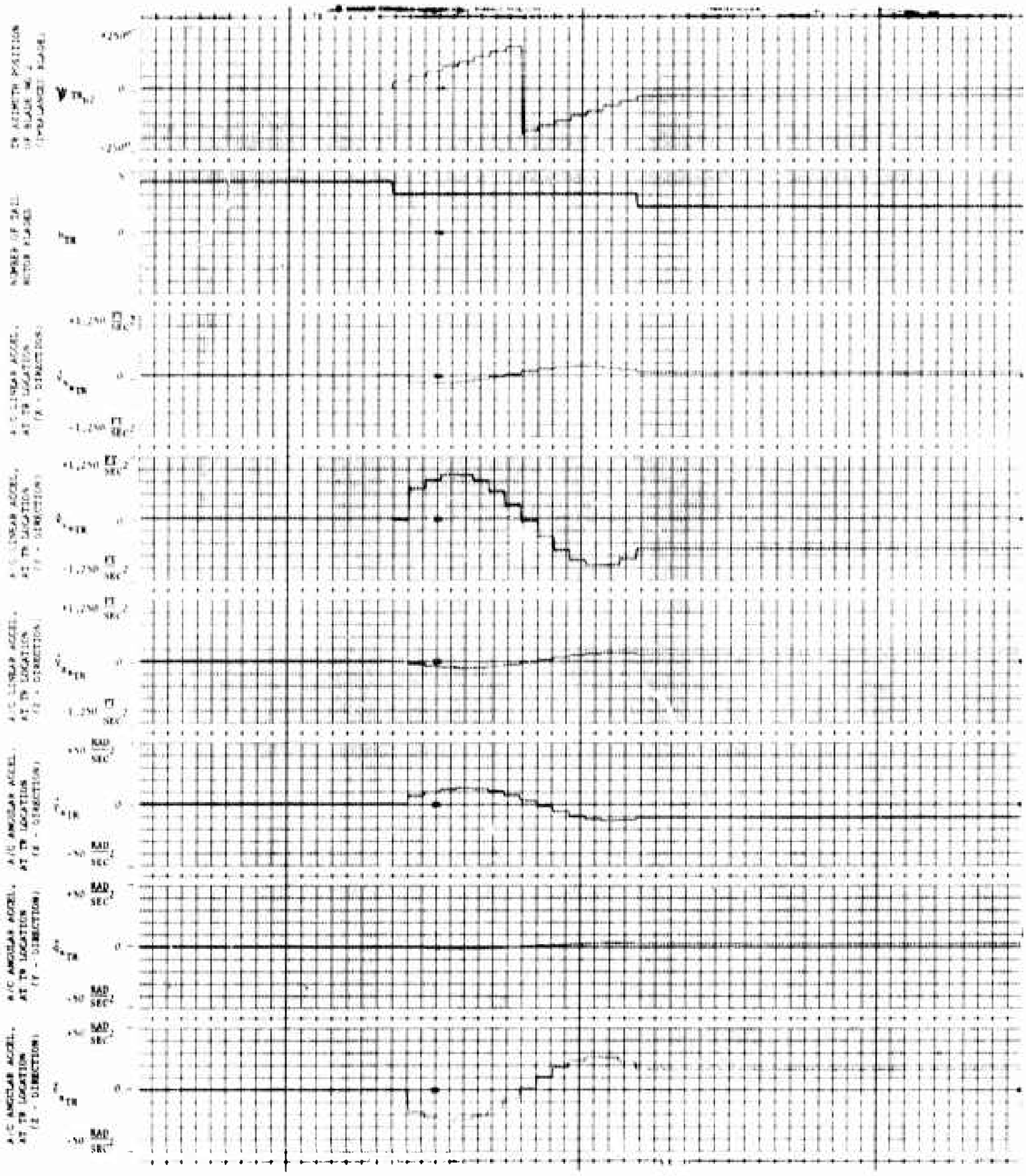
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 95% SAS: OFF H_D: 10,000 Ft

Figure D-9. (continued)

UTTAS(S76)   1-21-77   7-DEC-77   RUN 15.

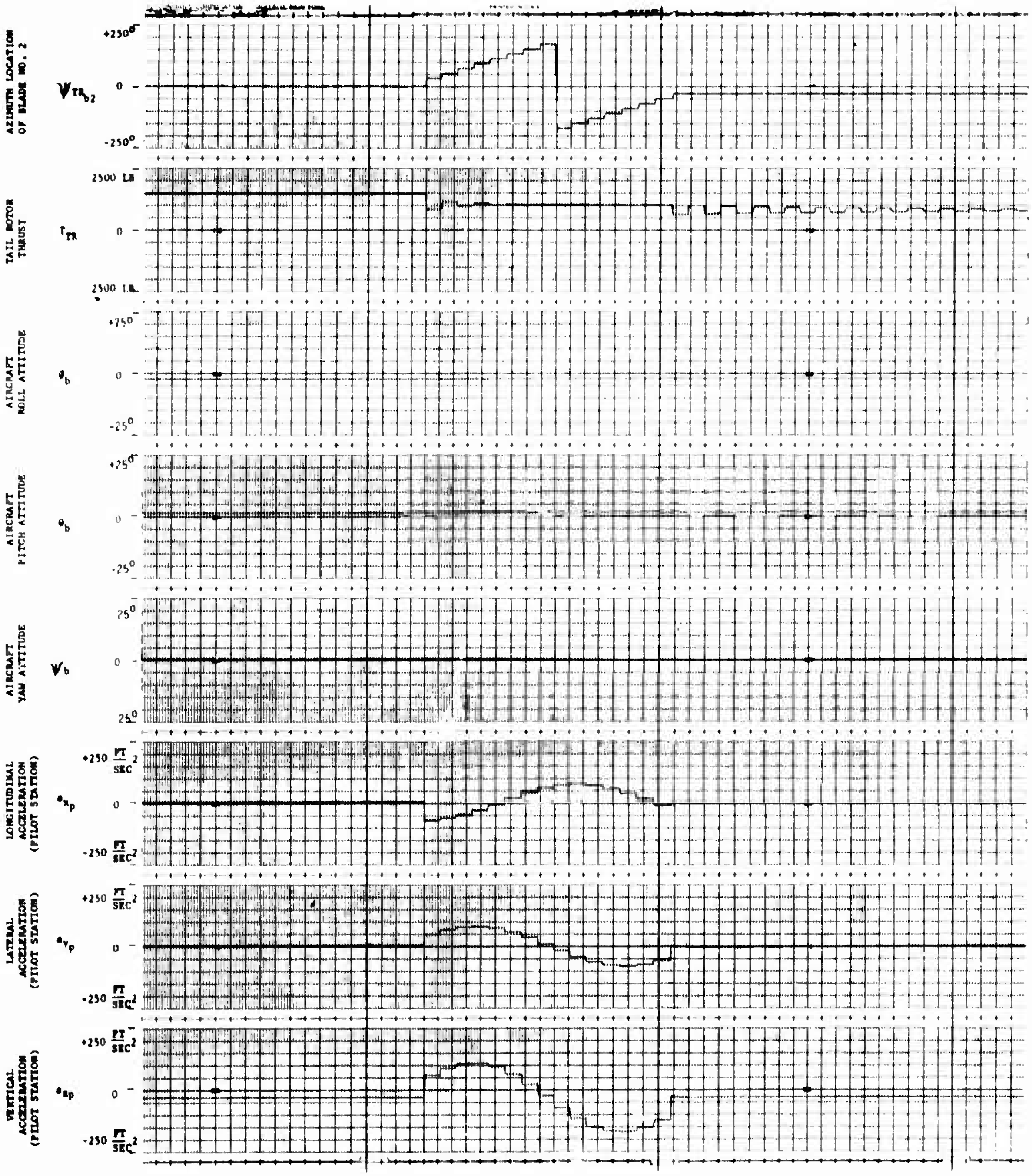
WEIGHT	19900.0	FSCG	347.0	V	1.0E-2	PSITR2	0.0		
IX	5468.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0		
IY	40287.0	RHO	0.17560000E-2	VSOUND	1077.0	VYSTR.	0.0		
IZ	38224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0		
OMEGMR	25.649999	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0		
OMEGTR	118.32250	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0		
KFR	15.0	PASCNT	1075.0	WLHT	234.0	FSVT	695.0		
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0		
LATSTK	0.33622503	A1S	-0.88756193	IHT	34.0	XA	52.101406		
LNGSTK	-1.3654426	B1S	-2.4827410	IS	-3.0	XB	54.824885		
COLSTK	22.361426	THETA0	22.361426	TH75MR	12.281426	XC	74.258917		
PEDAL	21.748664	THETTR	36.006376	TH75TR	22.506376	XP	21.311088		
XAIN	5.2101406	XBIN	5.4824885	XCIN	7.4258917	XPIN	1.1507688		
XBACTP	60.007016	XBACTI	6.0007016	RSTR.	0.0	PSTR	0.0		
VXB	0.16896658E-1	THETAB	0.74245104	AA0F	4.8596993	QSTR	0.0		
VYB	0.0	PHIB	-2.3784134	AA1F	2.6772541	RSTR	0.0		
VZB	0.21896820E-3	BETAWF	0.0	BB1F	-1.0241204	TITR	0.0		
P	0.0	GAMC	0.0	AA0L	-9.4000691	HITR	0.0		
Q	0.0	OMGRAT	1.0	AA1L	-0.16935800	JITR	0.0		
R	0.0	PSIDOT	0.0	BB1L	-0.16069545	MHITR	0.0		
ALFWF	-85.813533	EKTX	-0.53023976	EKWFX	0.21610007E-1	LHITR	0.0		
CHITPP	2.7012510	EKTZ	0.72024825	EKWFZ	0.29983885	QHITR	0.0		
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0		
QWF	0.19399675	KQHT	1.0	KQVT	0.84852813	YITR	0.0		
MUXS	0.24533431E-4	CTSIG	0.12049727	LTOT	-70.0	ZITR	0.0		
MUYS	0.0	CHSIG	0.51625223E-2	DTOT	45.079999	LITR	0.0		
MUZS	-0.96721173E-6	CQHSIG	0.11730630E-5	TTR	1526.2310	MITR	0.0		
LAMBMR	-0.71846474E-1	NZ	0.99891798	HPMR	2170.2562	NITR	0.0		
DWSHMR	0.71845507E-1	VC	0.11546071E-4	KTRBLK	0.79599999	AXP	0.39500075		
XMR	177.73851	HBAR	797.13025	VXBDOT	-0.22206597E-1	AYP	1.3585385		
YMR	-628.64868	JBAR	628.64868	VYBDOT	0.23042536E-1	AZP	-32.139716		
ZMR	-18620.412	TBAR	18605.638	VZBDOT	0.17653953E-3	VXP	0.16896658E-1		
LMR	-8808.0047	LBARH	-2602.3943	PDOT	0.25993833E-3	VYP	0.0		
MMR	14896.892	MBARH	6581.1971	QDOT	-0.17789459E-3	VZP	0.21896820E-3		
NMR	46015.352	QBAR	46535.709	RDOT	-0.26210617E-4	RSTR.	0.0		
XWF	12.904958	XT	43.499392	XTR	0.0	PSIDMG	-150.0		
YWF	0.0	YT	-0.34978258E-6	YTR	1434.2946	BTR	4.0		
ZWF	9.7133899	ZT	65.393978	ZTR	-522.04158	MADD	0.0		
LWF	0.0	LT	-0.78992567E-6	LTR	8809.4865	XADD	0.0		
MWF	-124.21451	MT	1968.9895	MTR	-16748.833	YADD	0.0		
NWF	0.0	NT	0.10143694E-4	NTR	-46016.954	ZADD	0.0		
XHT	43.499392	XVT	-0.62192189E-7	ALFHTT	-19.652797	NADD	0.0		
YHT	0.0	YVT	-0.34978258E-6	ALFVTT	0.0	LADD	0.0		
ZHT	65.393978	ZVT	0.84518045E-7	AABB1F	2.8664459				

Figure D-9. (continued)



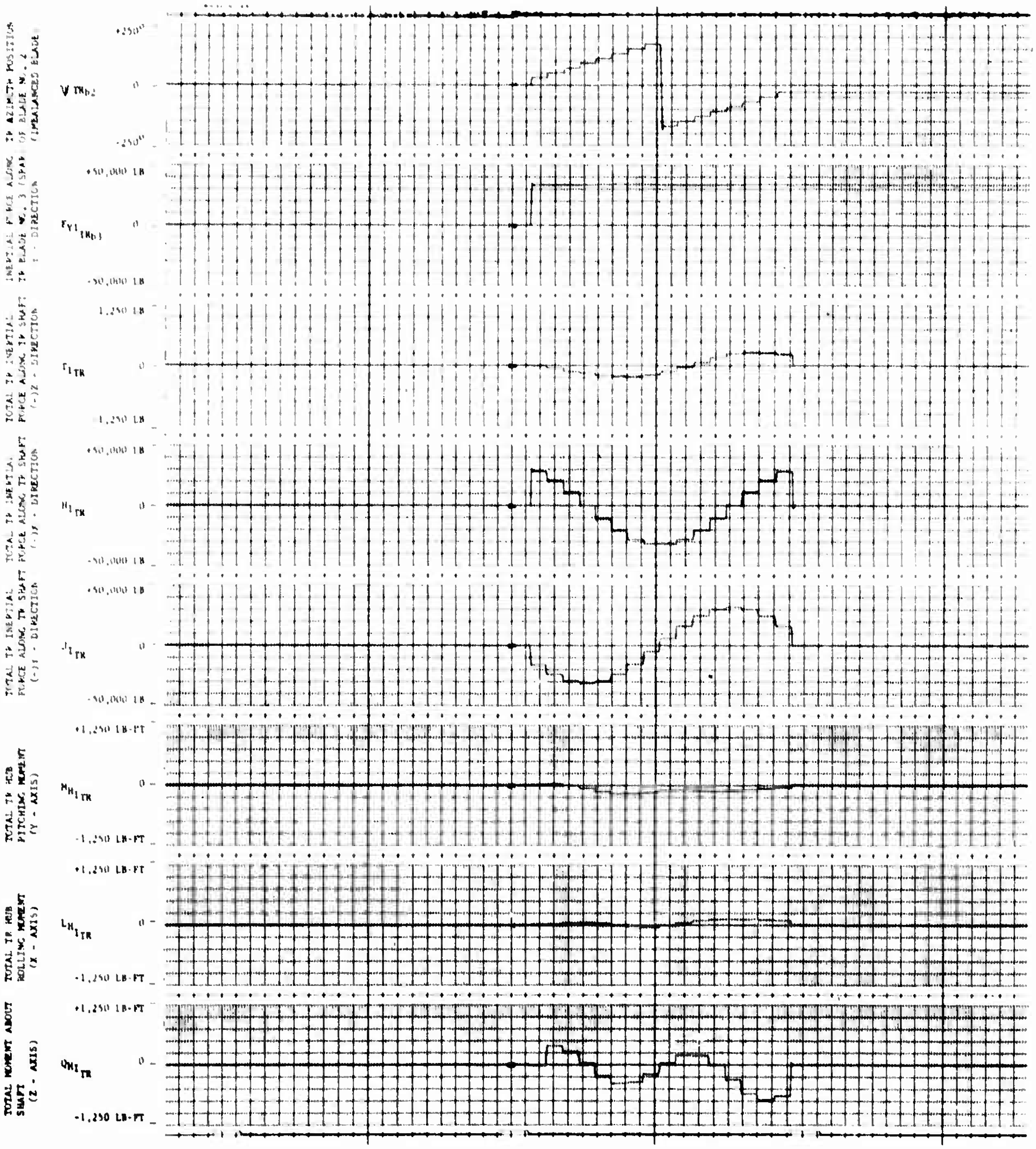
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-10. Stepped Transition Time History



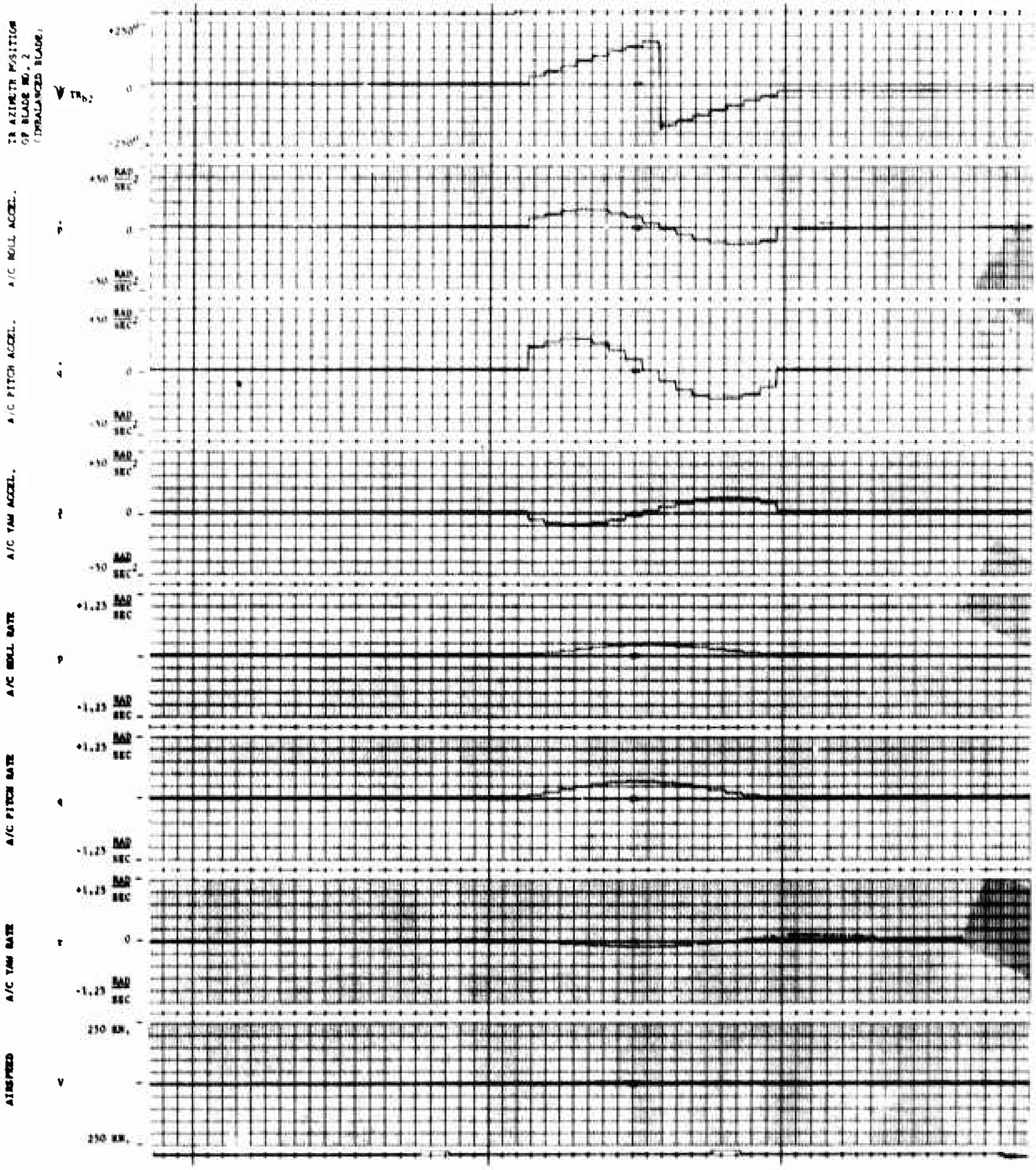
G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-10. (continued)



G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D:10,000 Ft

Figure D-10. (continued)



G.W.: 19,900 Lb. FSCG: 347 V: Hover N_R: 100% SAS: OFF H_D: 10,000 Ft

Figure D-10. (continued)

UTTAS(876)   1-21-77   9-DEC-77   RUN 12.

WEIGHT	19900.0	FSCG	347.0	V	1.0E-2	PSITR2	0.0
IX	5460.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	40287.0	RHO	0.17560006E-2	VSOUND	1077.0	VYSTR.	0.0
IZ	28224.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	29.700000	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	137.00499	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	797.0	WLHT	234.0	FSVT	695.0
FSHT	780.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	0.77006578E-1	A1S	-0.04272174	IHT	30.095614	XA	50.481291
LNGSTK	-0.04422245	B1S	-1.0089360	IS	-3.0	XB	51.569690
COLSTK	19.409401	THETA0	19.409401	TH75MR	9.3294011	XC	55.808758
PEDAL	19.711142	THETTR	30.426423	TH75TR	16.926423	XP	26.959573
XAIN	5.0481291	XBIN	5.1569690	XCIN	5.5808758	XPIN	1.4557791
XBACTP	56.909551	XBACTI	5.6909551	RSTR.	0.0	PSTR	0.0
VXB	0.16894791E-1	THETAB	1.1575311	AA0F	3.5190086	QSTR	0.0
VYB	0.0	PHIB	-2.5714680	AA1F	1.9909193	RSTR	0.0
VZB	0.34130616E-3	BETAWF	0.0	BB1F	-0.90486475	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-6.3604695	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	-0.92500087E-1	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	-0.93195509E-1	MHITR	0.0
ALFWF	-85.791369	EKTX	-0.49606364	EKWFX	0.16119244E-1	LHITR	0.0
CHIPP	2.0149056	EKTZ	0.63757079	EKWFZ	0.22365451	QHITR	0.0
EKTR	0.0	EPSWT	0.44999999	SIGWT	0.0	XITR	0.0
QWF	0.10011099	KQHT	1.0	KQVT	0.84852013	YITR	0.0
MUXS	0.21193662E-4	CTSIG	0.98029660E-1	LTOT	-70.0	ZITR	0.0
MUYS	0.0	CMSIG	0.29592792E-2	DTOT	45.079999	LITR	0.0
MUZS	-0.68179184E-6	COMSIG	0.63356932E-6	TTR	1394.9149	MITR	0.0
LAMBMR	-0.62100338E-1	NZ	0.99863448	HPMR	2296.3993	NITR	0.0
DWSMMR	0.62099656E-1	VC	0.21618980E-4	KTRBLK	0.79599999	AXP	0.67521553
XMR	363.65644	HBAR	612.62041	VXBDOT	0.25858996E-1	AYP	1.4326575
YMR	-460.02712	JBAR	460.02712	VYBDOT	-0.88384862E-2	AZP	-32.129382
ZMR	-18642.720	TBAR	18637.649	VZBDOT	0.59669538E-4	VXP	0.16894791E-1
LMR	-8051.7150	LBARH	-3868.9148	PDOT	0.18407133E-3	VYP	0.0
MMR	13808.949	MBARH	6590.1334	QDOT	0.19199364E-3	VZP	0.34130616E-3
NMR	42071.915	QBAR	42525.914	RDOT	0.51938199E-3	RSTR.	0.0
XWF	7.1981497	XT	30.079456	XTR	0.0	PSIDMG	-150.0
YWF	0.0	YT	-0.34976672E-6	YTR	1310.8887	BTR	4.0
ZWF	5.4163090	ZT	52.494398	ZTR	-477.12541	MADD	0.0
LWF	0.0	LT	-0.78988986E-6	LTR	8051.5233	XADD	0.0
MWF	-69.238111	MT	1575.7808	MTR	-15397.773	YADD	0.0
NWF	0.0	NT	0.10143235E-4	NTR	-42057.681	ZADD	0.0
XHT	30.079456	XVT	-0.64416423E-7	ALFHTT	-22.034167	NADD	0.0
YHT	0.0	YVT	-0.34976672E-6	ALFVTT	0.0	LADD	0.0
ZHT	52.494398	ZVT	0.02035508E-7	AAB1F	2.1869010		

Figure D-10. (continued)

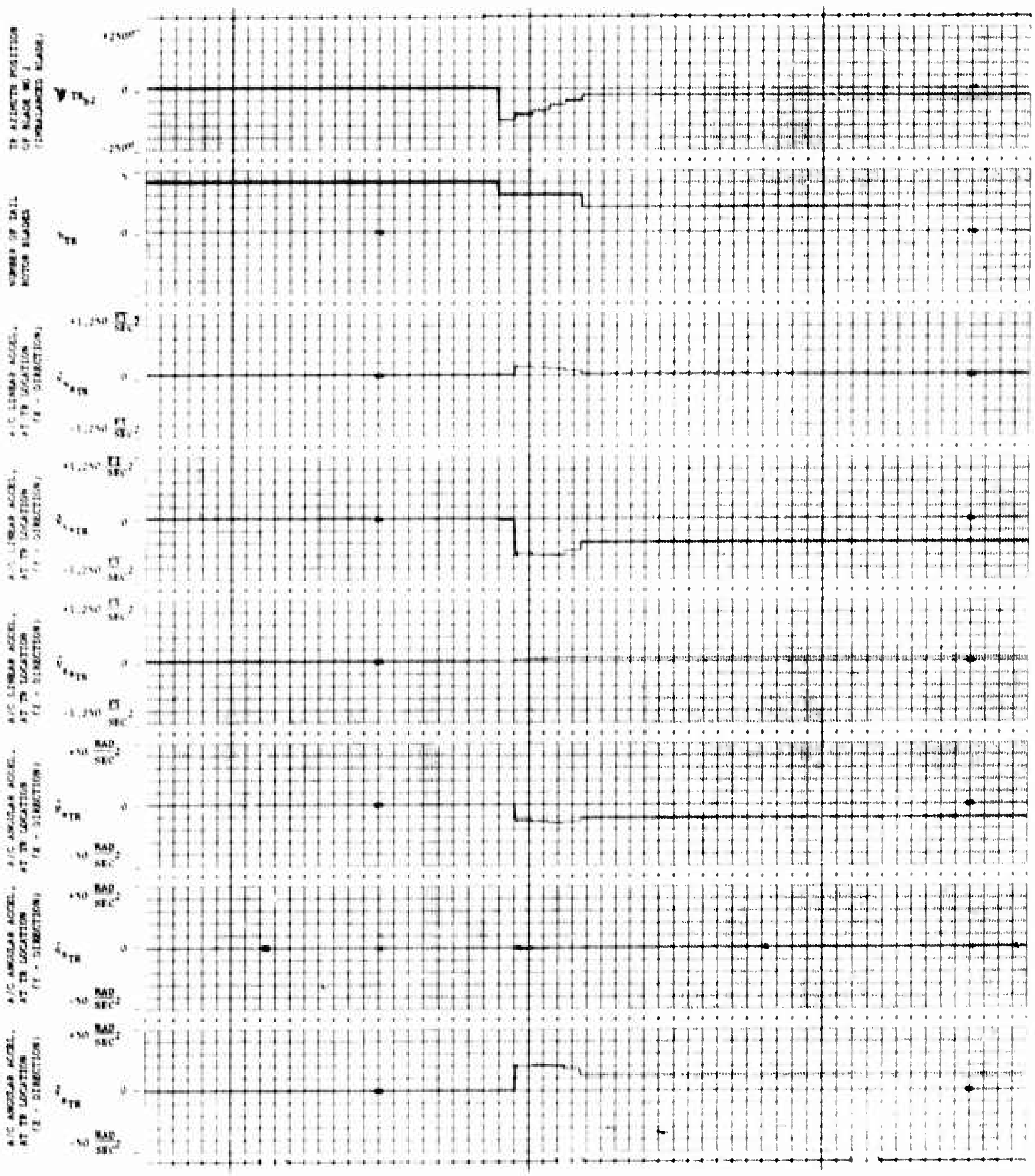


Figure D-11. Stepped Transition Time History,   Damage = 50^{0}

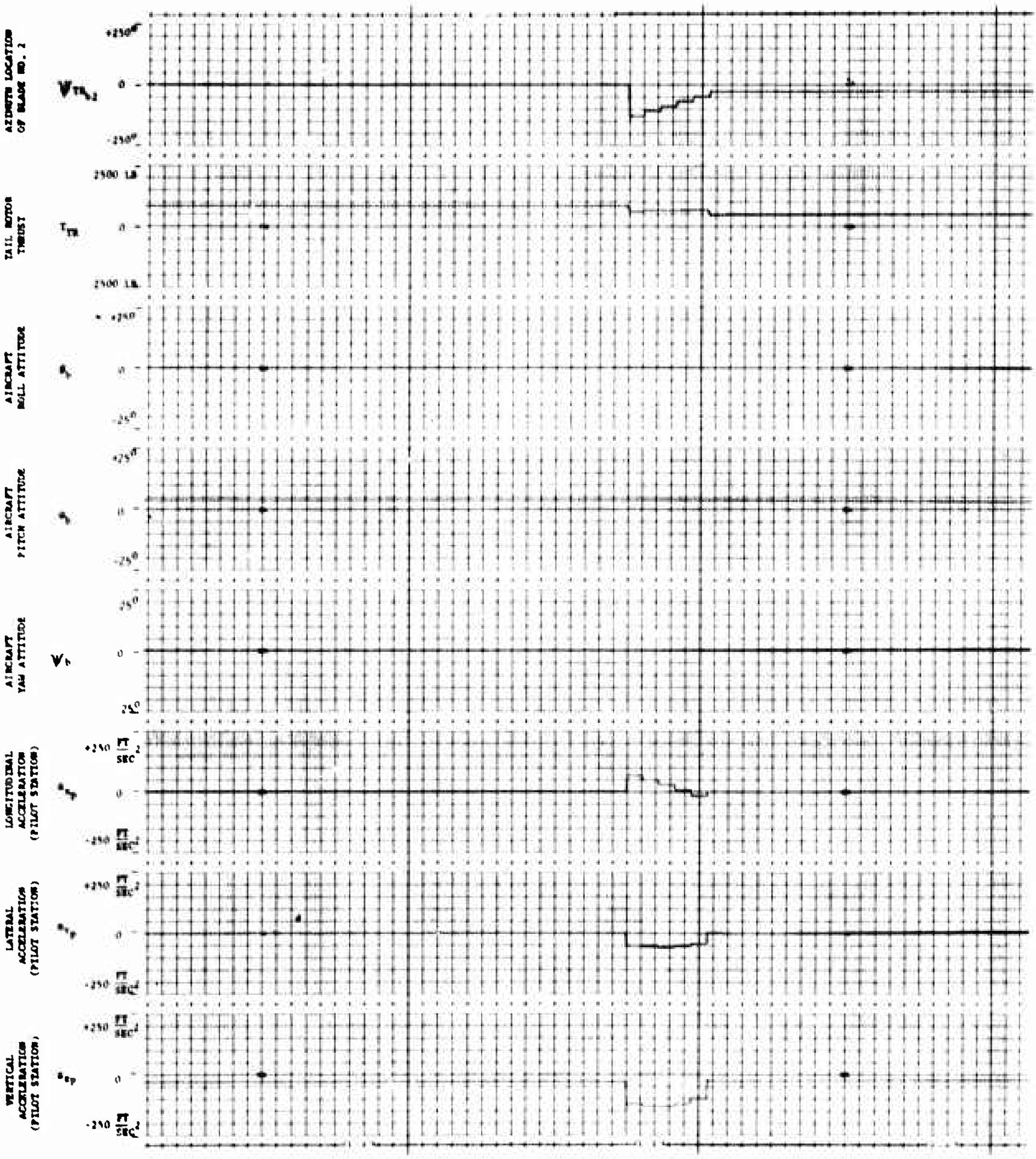


Figure D-11. (continued)

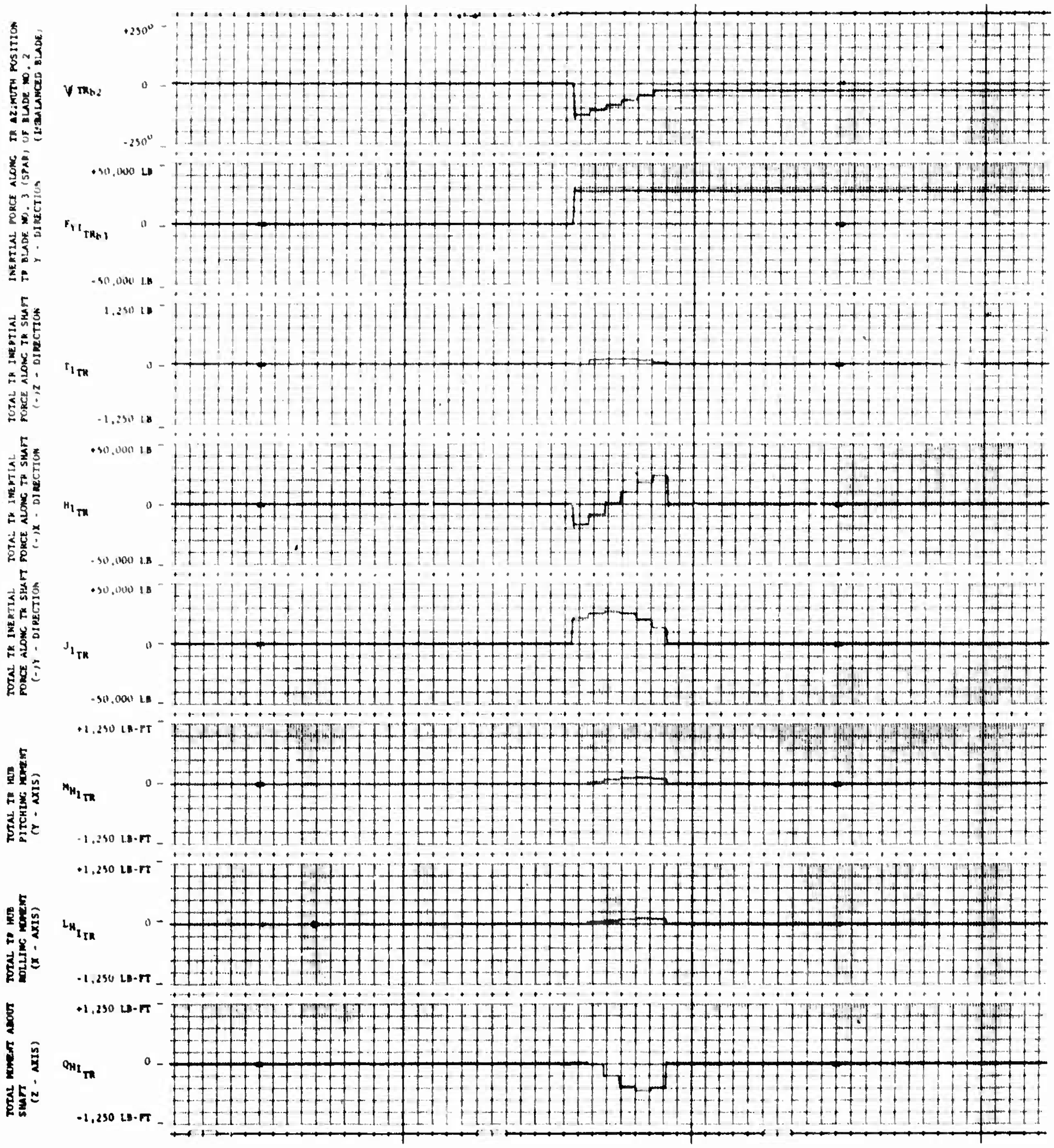


Figure D-11. (continued)

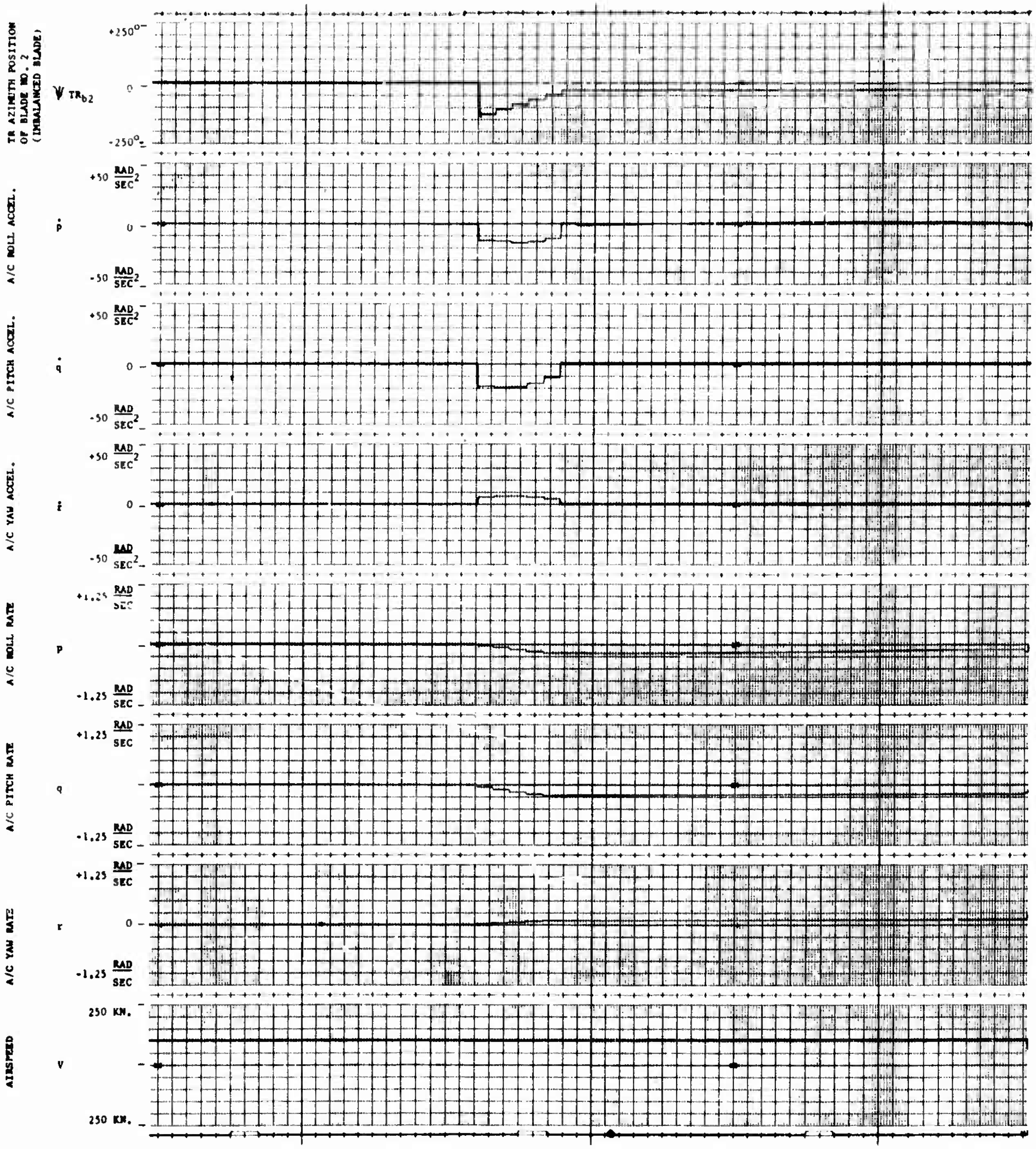


Figure D-11. (continued)

UTTAS(376) 1-21-77 18-NOV-77 RUN 10.

WEIGHT	16450.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	4330.0	WLCG	245.89999	DELS	-5.2	VXSTR.	0.0
IY	38515.0	RHO	0.23780000E-2	VSOUND	1116.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-10.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	TWSTTR	-10.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.59340201	A1S	-1.2161287	IHT	-2.7695542	XA	46.290737
LNGSTK	0.7472700	B1S	0.0051660	IS	-3.0	XB	19.090889
COLSTK	16.525114	THETA0	16.525114	TH75MR	6.4451140	XC	37.781963
PEDAL	11.187155	THETTR	10.441292	TH75TR	4.9412920	XP	50.590054
XAIN	4.6290737	XBIN	1.9090889	XCIN	3.7781963	XPIN	2.7317919
XBACTP	21.024400	XBACTI	2.1024400	RSTR.	0.0	PSTR	0.0
VXB	168.65003	THETAB	3.6800052	AABF	3.1014497	QSTR	0.0
VYB	11.391420	PHIB	0.0	AA1F	-5.6861062	RSTR	0.0
VZB	10.047795	BETAWF	3.6790095	BB1F	0.88649945E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1980659	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24187694	JITR	0.0
R	0.0	PSIDOT	0.0	BB1L	0.36200005	MHITR	0.0
ALFWF	0.55000986	EKTX	1.3047460	EKWFX	0.92604990	LMITR	0.0
CHITPP	82.003540	EKTZ	1.6490261	EKWFZ	1.0079961	GHITR	0.0
EKTR	0.0	EPSHT	0.40679009	SIGHT	0.64751975	XITR	0.0
QWF	37.429361	KQHT	0.07177979	KQVT	0.03100377	YITR	0.0
MUXS	0.23325674	CTSIG	0.67070526E-1	LTOT	3.4630934	ZITR	0.0
MUYS	0.15725112E-1	CMSIG	-0.47506950E-2	DTOT	24.481060	LITR	0.0
MUZS	0.27690811E-2	CQMSIG	0.49892652E-6	TTR	837.04561	MITR	0.0
LAMBMR	-0.97539494E-2	NZ	0.99705491	HPMR	1133.2135	NITR	0.0
DWSMMR	0.12522950E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.0642155
XMR	1922.0494	HBAR	-1100.6890	VXBDOT	0.15184240E-2	AYP	-0.24486269E-1
YMR	-254.36015	JBAR	254.36015	VYBDOT	-0.14360017E-1	AZP	-32.103912
ZMR	-15644.553	TBAR	15724.929	VZBDOT	0.23909519E-2	VXP	168.65003
LMR	-5026.5936	LBARM	-2201.0103	PDOT	-0.95050965E-2	VYP	11.391420
MMR	-042.14135	MBARM	-15256.306	QDOT	0.20261096E-2	VZP	10.047795
NMR	22507.512	QBAR	23003.979	RDOT	-0.29749400E-2	RSTR.	0.0
XWF	-093.60400	XT	-23.053153	XTR	0.0	PSIDMG	50.6
YWF	-361.12760	YT	-170.11212	YTR	706.62407	BTR	4.0
ZWF	-130.22601	ZT	464.63322	ZTR	-206.30030	MADD	0.0
LWF	556.64727	LT	-395.01927	LTR	4031.4717	XADD	0.0
MWF	-3392.2619	MT	13103.227	MTR	-0070.7855	YADD	0.0
NWF	-3194.7102	NT	4970.2169	NTR	-24372.235	ZADD	0.0
XHT	-13.177201	XVT	-10.675071	ALFHTT	-4.7546403	NADD	0.0
YHT	-1.9745510	YVT	-176.13757	ALFVTT	3.0617702	LADD	0.0
ZHT	464.26319	ZVT	0.37003121	AA0B1F	5.6060070		

Figure D-11. (continued)

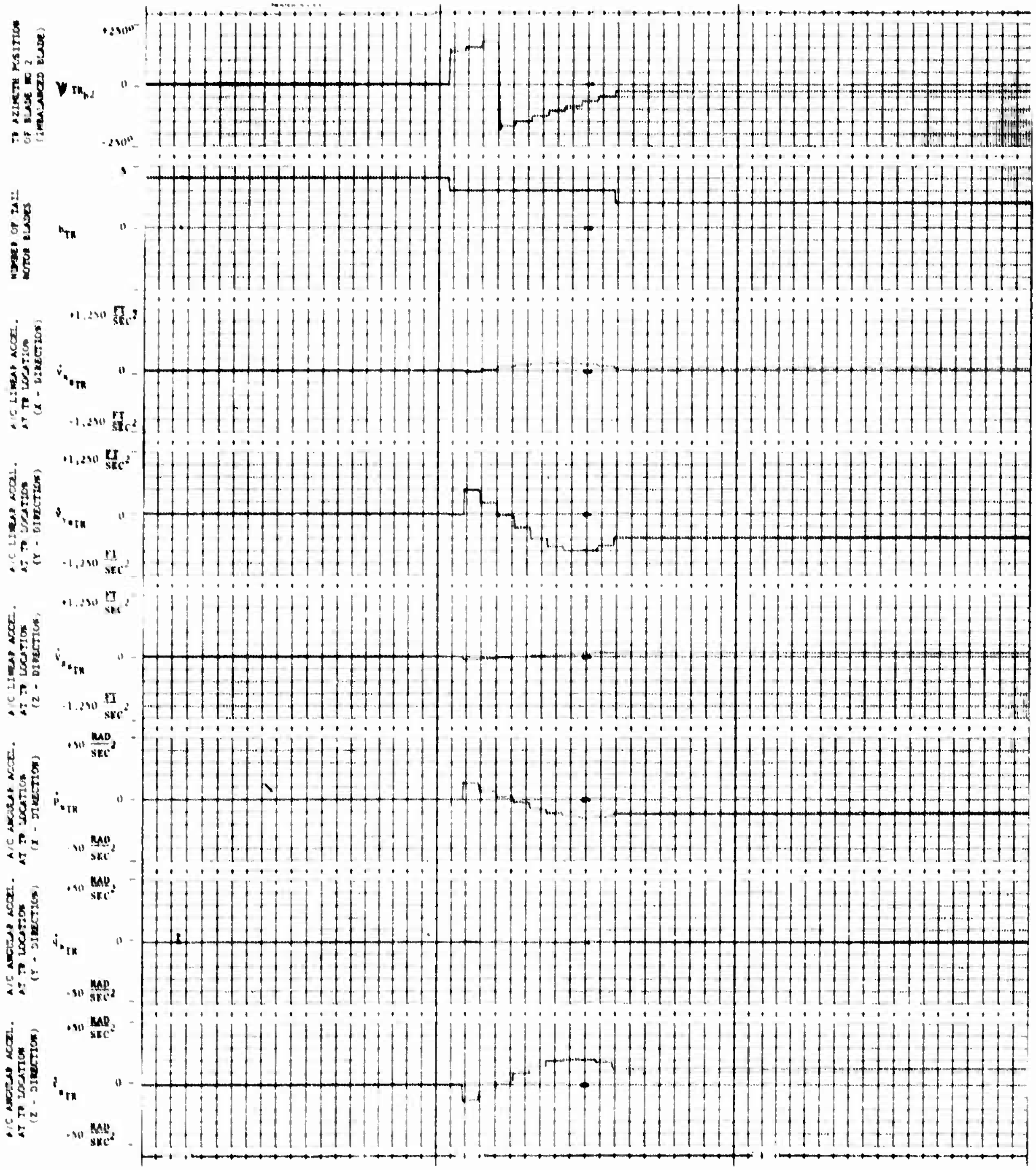


Figure D-12. Stepped Transition Time History, Damage = -50^{o}

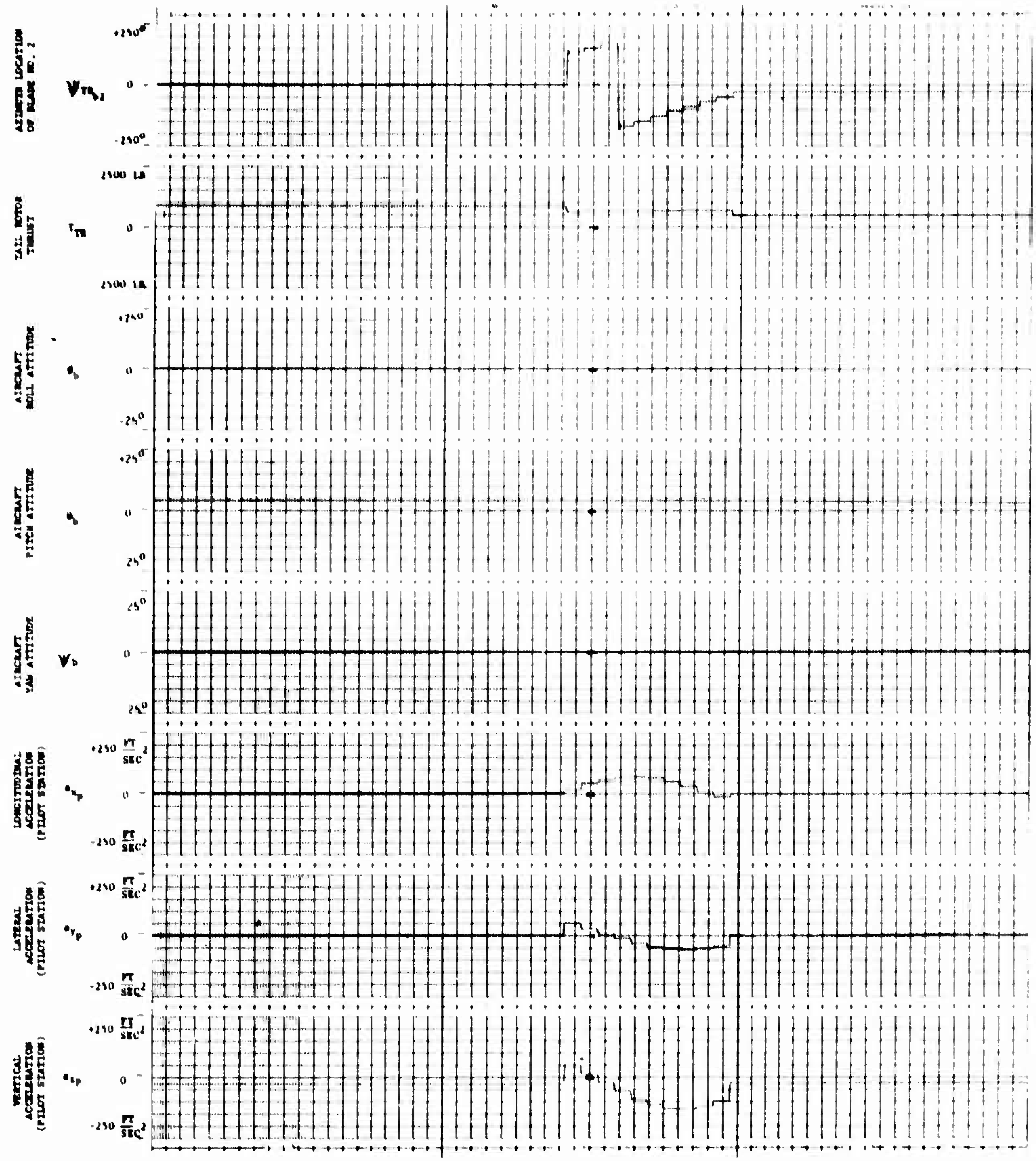


Figure D-12. (continued)

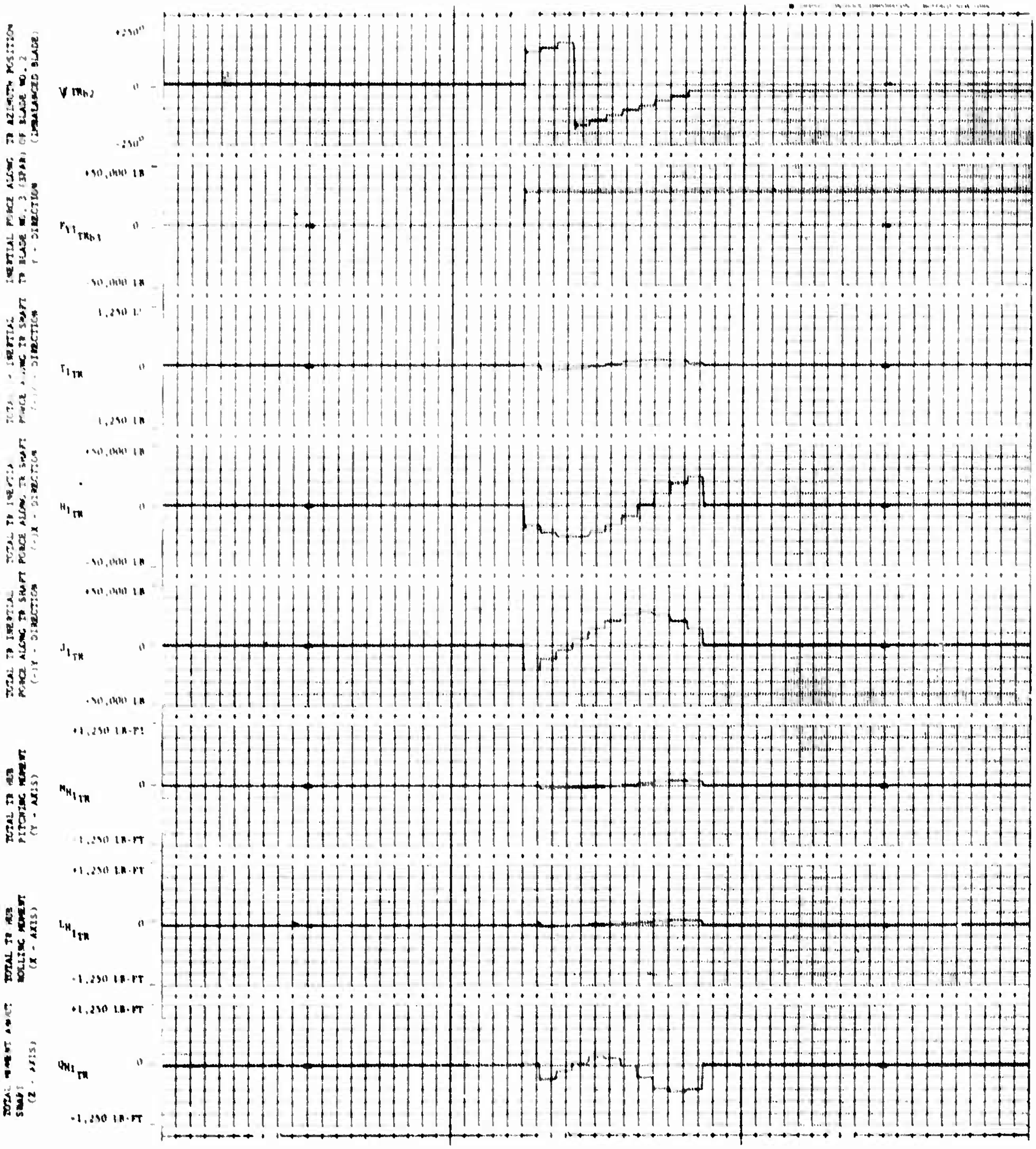


Figure D-12. (continued)

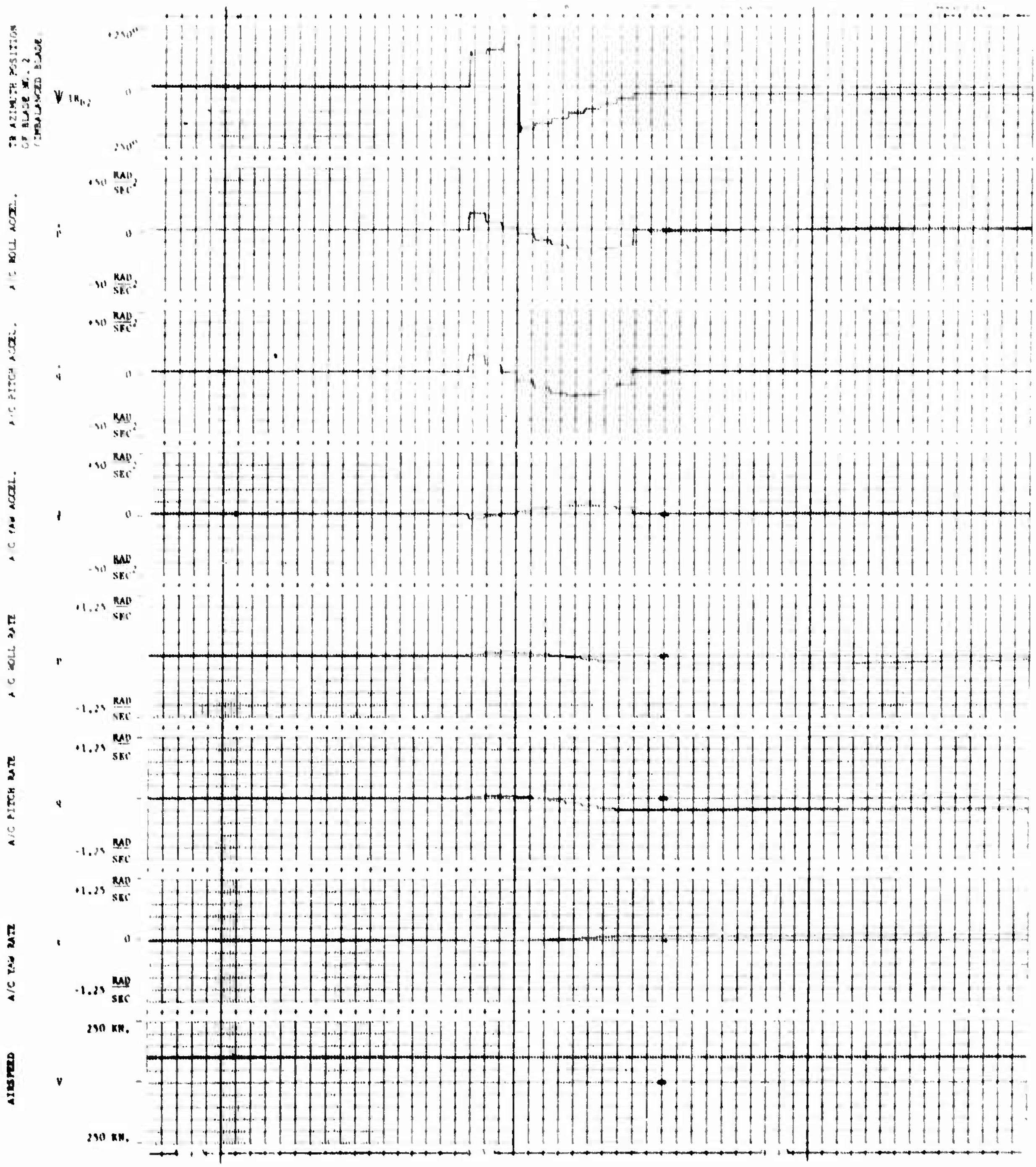


Figure D-12. (continued)

UTTAS(S76)   1-21-77   ~~17~~ 18-NOV-77   RUN 11.

WEIGHT	16450.0	FSCG	360.20000	V	100.0	PSITR2	0.0
IX	4330.0	WLCG	245.89999	DELS	-5.0	VXSTR.	0.0
IY	38515.0	RHO	0.23780000E-2	VSOUND	1116.0	VYSTR.	0.0
IZ	37363.0	TIME	0.20000000E-1	DEL3MR	0.0	VZSTR.	0.0
OMEGMR	27.0	NBSS	4.0	TWSTMR	-18.0	PSTR.	0.0
OMEGTR	124.55000	NSSS	5.0	TWSTTR	-18.0	WLVT	273.0
KFR	15.0	PASCNT	1217.0	WLHT	234.0	FSVT	695.0
FSHT	700.40000	SHT	45.0	SVT	32.300000	QSTR.	0.0
LATSTK	-0.59348201	A1S	-1.2161287	IHT	-2.7695562	XA	46.290737
LNGSTK	8.7472780	B1S	8.8851660	IS	-3.0	XB	19.890889
COLSTK	16.525114	THETA0	16.525114	TH75MR	6.4451140	XC	37.781963
PEDAL	11.187155	THETTR	18.441292	TH75TR	4.9412920	XP	50.590854
XAIN	4.6290737	XBIN	1.9890889	XCIN	3.7781963	XPIN	2.7317919
XBACTP	21.024400	XBACTI	2.1024400	RSTR.	0.0	PSTR	0.0
VXB	168.65003	THETAB	3.6800852	AA0F	3.1014497	QSTR	0.0
VYB	11.391428	PHIB	0.0	AA1F	-5.6061062	RSTR	0.0
VZB	10.847795	BETAWF	3.6798895	BB1F	0.88649945E-1	TITR	0.0
P	0.0	GAMC	0.0	AA0L	-4.1980659	HITR	0.0
Q	0.0	OMGRAT	1.0	AA1L	0.24187694	JITR	0.0
R	0.0	PHIDOT	0.0	BB1L	0.36200885	MHITR	0.0
ALFWF	0.55080986	EKTX	1.3847468	EKWFX	0.92604998	LHITR	0.0
CHITPP	82.003840	EKTZ	1.6490261	EKWFZ	1.0079961	QHITR	0.0
EKTR	0.0	EPSWT	0.48679089	SIGWT	0.64751975	XITR	0.0
QWF	37.429361	KQHT	0.87177979	KQVT	0.83100377	YITR	0.0
MUXS	0.23325674	CTSIG	0.67870526E-1	LTOT	3.4630934	ZITR	0.0
MUYS	0.15725112E-1	CHSIG	-0.47506950E-2	DTOT	24.481060	LITR	0.0
MUZS	0.27690011E-2	COMSIG	0.49892652E-6	TTR	837.04561	MITR	0.0
LAMBMR	-0.97539494E-2	NZ	0.99785491	HPMR	1133.2135	NITR	0.0
DWSHMR	0.12522950E-1	VC	0.71525573E-5	KTRBLK	1.0	AXP	2.8642155
XMR	1922.0494	HBAR	-1100.6898	VXBDOT	0.15184248E-2	AYP	-0.24486269E-1
YMR	-254.36815	JBAR	254.36815	VYBDOT	-0.14368817E-1	AZP	-32.103912
ZMR	-15640.553	TBAR	15724.929	VZBDOT	0.23909519E-2	VXP	168.65003
LMR	-5026.5936	LBARM	-2281.0183	PDOT	-0.95050965E-2	VYP	11.391428
MMR	-842.14135	MBARM	-15256.386	QDOT	0.22261896E-2	VZP	10.847795
NMR	22507.512	QBAR	23003.979	RDOT	-0.29749480E-2	RSTR.	0.0
XWF	-893.68498	XT	-23.853153	XTR	0.0	PSIDMG	-50.0
YWF	-361.12768	YT	-178.11212	YTR	786.62487	BTR	4.0
ZWF	-130.22601	ZT	464.63322	ZTR	-286.30830	MADD	0.0
LWF	556.64727	LT	-395.81927	LTR	4831.4717	XADD	0.0
MWF	-3392.2619	MT	13183.227	MTR	-8870.7855	YADD	0.0
NWF	-3194.7102	NT	4970.2169	NTR	-24372.235	ZADD	0.0
XHT	-13.177281	XVT	-10.675871	ALFHTT	-4.7546403	NADD	0.0
YHT	-1.9745510	YVT	-176.13757	ALFVTT	3.8617782	LADD	0.0
ZHT	464.26319	ZVT	0.37803121	AA9B1F	5.6068078		

Figure D-12. (continued)